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A CURIOUS discussion took place recently in the Pennsylvania Legislature, upon a matter which bears a distant resemblance to the question of architects' services. A bill is now pending before the Legislature for eliminating irresponsible persons from among the druggists of the State by requiring the registration of all those now exercising that profession, and the examination of all who shall desire in future to enter it. During the discussion some friend, not only of the medical profession but of humanity, proposed to amend the bill by adding a provision that no druggist should be allowed to fill a physician's prescription more than once without a renewed order from the physician. It was stated, in support of the bill, that one physician in Harrisburg had known a patient, after securing a prescription from his doctor, to have it filled at his own discretion a hundred and fifty times. Leaving out of consideration the effect of such practices on the health of the patient, the mover of the amendment was of opinion that the physician whose skill devised the prescription ought to have received his modest fee for it on each occasion when it was used. This does not seem an extravagant claim for the members of the worst paid of all professions except the Christian ministry, but another member rose and explained that the proposed amendment was "against the rights of the people;" and as Legislatures are very careful not to do anything which they are told is "against the will of the people,"— without inquiring how the person who tells them so happens to know anything about the subject, — the amendment was rejected.

ARCHITECTS, very naturally, have the same feeling as physicians, that their plans, like the prescriptions of the latter, are the expression of trained skill and labor, rather than bits of colored paper; and that the skill which produced them deserves to be rewarded whenever it is made use of. They think, too, that the persons who have taste enough to appreciate their skill ought to have a moral sense delicate enough to offer them suitable compensation when they wish to avail themselves of that skill, without waiting for the professional man to pursue them and claim his rights. The public, however, or at least the less scrupulous part of it, finds it convenient to call architects and doctors professional men when it wishes to make them responsible for the results of any mistakes of judgment, but to class them, like the Massachusetts statistician, as "manufacturers" of plans and prescriptions when it desires to fix the price which it wishes to pay for these productions. Unfortunately, the penalty of ruined health, or even death, which is generally attached to any tampering with physicians' prescriptions, has no counterpart in the relations of architects with their surreptitious clients, but it is at least consoling to observe that unauthorized duplicates or imitations of an architect's legitimate work usually have a certain quality which makes them and their owners ridiculous.

THE *Lumber World* makes the astonishing assertion that the loss to this country through forest fires is now not less than three hundred million dollars a year, simply through the destruction of available timber, without counting the additional loss from the annihilation of the young growth and the seeds scattered on the surface, and the scorching of the ground, which often renders it sterile for a generation. This enormous sum, about equal to the interest on the public debts of all the civilized nations of the world combined, is, according to the report of experts, annually thrown away forever by the people of the United States, without the smallest return in the way of comfort or satisfaction, but, on the contrary, at the cost of many lives every year, simply through the carelessness of boys and hunters, and of those more intelligent persons who ought to know enough to keep a sharp watch over these destructive animals. Next to human beings of feeble intellect, railway locomotives do most injury in forest countries, and the *Lumber World* inquires seriously whether the owners of such locomotives should not be compelled, in the public interest, to furnish them with spark-arresters during the dry season. The idea that railway companies are responsible for the value of timber destroyed by fires set from their locomotives undoubtedly has some effect in preventing legislative interference with their management; but it is so difficult to fix the kindling of a forest fire with certainty upon locomotive sparks, to say nothing of the obstacles in the way of collecting large debts from newly-established railway corporations, that the safer way would be to provide as far as possible against raising the question of responsibility by compelling the use of spark-arresters. Against animated incendiaries a forest patrol might be tolerably effective, but it would be still more useful to provide in some way for the removal of underbrush from woodland. Trees by themselves are not easily kindled, and the mischief is usually done through the ignition of dry leaves, ferns or bushes, which burn long enough to char, and at last to kindle the branches of the trees above them.

THE *Builder* gives us the first intelligible account we have seen of the effects of the dynamite explosions in London. In regard to the explosion in the Tower, we learn that instead of "blowing off the roof of the White Tower," as the first telegraphic despatches informed us, the dynamite torpedo, which was left upon the floor of what is called the Banqueting Hall, near the door leading from this room into St. John's Chapel, blew a hole in the floor beneath it, and threw over several stacks of rifles near by, the violence of the explosion twisting and breaking some of the rifles. Curiously enough, the pressure of the gas generated by the explosion lifted the ceiling of the Banqueting Hall, and with it the floor of the Council Chamber above, wrenching and breaking the glass cases, filled with Oriental armor, which stood there; and the same impulse, passing through the doorway into the Chapel, blew out the whole of the glass in the windows. The glass, which was all set in lead, was thrown outward, but, for some unexplained reason, the iron bars set into the window jambs to support the lead-work were forced inward, toward the interior of the church, breaking away the stone jambs by the force with which they were torn from their places. At Westminster Hall, thanks to the courage of the brave policemen, Cole and Cox, who picked up the torpedo and carried it away, little damage was done, and the beautiful roof is believed to have sustained no serious injury, the explosion having spent itself on the modern wood-work in the House of Commons.

THE Society of Architects of Northern France, which has for some time been noted as one of the most energetic and best conducted professional societies in the world, has just lost its distinguished president, M. Désiré-Théophile Sauvage, of Lille. M. Sauvage had nearly completed his sixty-first year, and was at the very height of his reputation as an architect of great talent, and of the most honorable character. In everything that could further the interests of his beloved profession he was always deeply interested, and although absorbed in business of great responsibility, he found time not only to direct with admirable skill the affairs of the Society which he did much to found, but to take an important part in the

deliberations of the Société Centrale, the general professional association in France.

THE *Builder* gives some statistics of the consumption of the finer sorts of timber in Great Britain, which are interesting. Although two-and-a-half million acres of forest still remain in Britain, most of the wood used there for building is imported from other countries, the value of the timber imports reaching an average of nearly one hundred million dollars a year. Framing timber is brought to England both from North America and from the Baltic ports, Russia, as it is well to remember, possessing more than half as much forest land as either the United States or Canada. North America now sends to England hard-wood timber, as well as pine and spruce; oak, elm, ash, birch and maple being regularly imported; while the rest of the world, with the exception of Russia, supplies little except fine furniture woods and veneers. In case of need, a great deal of excellent eucalyptus timber could be obtained from Australia, where these wonderful trees grow to a size far exceeding that of any other known species; but the cost of transporting the great trunks half-way around the earth renders their importation unprofitable, and the shipments of wood to Liverpool from the antipodes comprise only a few samples of richly-marked veneering blocks. From other tropical countries, however, a considerable amount of ornamental timber is brought. Mahogany stands at the head of the furniture woods, the average annual consumption in Great Britain being fifty thousand tons. Next, perhaps, to this in importance, singularly enough, comes sandal-wood, which is produced in immense quantities in India, and sent thence to all parts of the world, particularly to China, where it is used for a great variety of purposes. Ebony is another staple decorative wood, which is consumed in great quantities for inlaying, keys of musical instruments, and so on. There are several varieties of the tree whose heartwood forms ebony, and it is imported from India, Africa and the Mauritius, that from the last-named country being the blackest. The account says that five dollars a pound has been paid for fine pieces of ebony.

IN speaking of foreign timber, it is worth remarking that several varieties, belonging to countries on the very edge of the tropics, have recently been grown with perfect success in the Isle of Arran, on the west coast of Scotland, in latitude fifty-five, about as far north as the middle of Labrador, and within eleven degrees of the Arctic circle. The island, which is about twenty miles long by eight or ten wide, lies in the estuary which forms the mouth of the river Clyde, open to the influence of the Gulf Stream current which passes between Scotland and Ireland. A group of mountains, nearly three thousand feet high, occupies the eastern coast, and it is remarkable that although the east winds, which blow from the North Sea, are always the coldest in Great Britain, the Arran mountains seem to check the force of the winds which strike them, so that the climate of the eastern shore, just at the foot of the mountains, although apparently fully exposed to the cold winds, is exceptionally mild and even, and not only eucalyptus trees of various species, but palms and tree-ferns, grow luxuriantly. A specimen of the *Eucalyptus globulus*, or blue gum, which is destroyed by a temperature as low as twenty-seven degrees above zero of Fahrenheit's thermometer, has grown steadily for several years, and has now reached a height of thirty feet, and a diameter, five feet from the ground, of nearly seven inches. Among the palm-trees are one or two which have been growing there for twelve years, and all are said to be now in perfect condition. Arran is a wild, rocky place, inhabited mostly by herring fishermen, who care little for experiments in arboriculture; but if it could be made to grow eucalyptus timber there would hardly be a more valuable producing district in Great Britain, for the eucalyptus trees not only grow very rapidly, but furnish a wood which, without any preservative treatment, has been known to remain buried underground for fifty years without rotting; and the demand for such timber from the railway companies, for their ties, would, if it could be supplied, be great enough to keep all Scotland at work growing the trees.

A QUESTION of architects' responsibility was recently brought before the editor of *La Semaine des Constructeurs*. An architect was employed by the authorities of a certain place to design a town-hall. The plans were made and approved and contracts were entered into for carrying them out; the City Council reserving the right of supervising the work. In the course of construction changes were made in the plans, by which some of the piers were done away with, and iron girders inserted in place of them to carry the walls above. The architect, without making any charge for the service, calculated the necessary dimensions of the girders, in consultation with an engineer; but the form suggested by him was rejected as "too expensive" by the town authorities. The latter then adopted a plan for the girders submitted by an iron-worker, and contracted with him to furnish them, without asking the advice or consent of the architect. While the girders were being put in place, one of them gave way, and the building was seriously damaged, both by the fall of the girder and the masonry about it, and by the cutting and underpinning needed to restore the work to its position. Finally, the building was completed, and for a long time no movement was observed; but after five years of use a piece of a cornice fell off, bringing with it some plaster ornaments. It was observed, after the fall of the cornice, that some of the iron ties which held the plaster to the wall were detached, but in spite of this evidence that the fall of the plaster was due to the dislocation of the irons, the town authorities promptly began a suit against the architect for damages on account of imperfections in the plaster-work. The contractor who did the plaster-work was still at hand, but he had failed not long before, and besides, the town councillors, as often happens in other countries, were probably too politic to risk offending a person who employed a considerable number of workmen so long as they could choose a professional man for a victim.

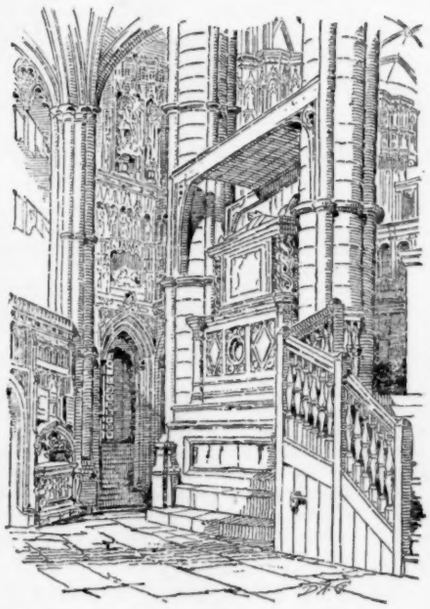
THE architect, arguing from the evidence afforded by the broken cornice moulding, maintained that the plaster-work was good enough for its purpose, and that the fall of the cornice was due to the detaching of the ties at the time when the fall of the girder had shaken the masonry of a large part of the building; but, independently of this consideration, he was anxious to know how far his responsibility would be involved in the fall of badly-executed plastering under the circumstances. The editor, or rather, M. Ravon, the Secretary of the Committee on Jurisprudence, replies that if the accident were really due, as the architect thought, to the disorders caused in the structure by the breaking of a girder contracted for directly by the town authorities, without the advice of the architect, the latter could not be regarded as in any way responsible; while, even if the occurrence had been due to the bad quality of the plaster-work, the contractor, who sold the materials, and furnished the men who did the bad work, would be solely responsible for the consequences, even though the architect might, by special diligence, have discovered the inferiority of the materials while the work was going on. In the present case, however, the town councillors could not claim even the poor consolation of reproaching the architect for what he might or might not have done; for their own contracts expressly provided that the supervision of the work was reserved to them, and whatever fraud had been committed was carried on under their own official surveillance.

OUR readers can just at this moment give us some little assistance, if they will, and at the same time afford one another a modest share of amusement, by sending to us a postal card giving the title of the ten buildings which the subscriber believes to be the most successful examples of architectural design in this country. As it will be only natural to mention the name of the designer as well as of the building, the vote we propose will have an element of human interest, also, as the designers of the best ten buildings — if the vote cast be sufficiently large — may properly be considered to be enrolled in that highly elect but, at present, nebulous fraternity styled "leading architects." It is hardly necessary to say that no vote will be counted that does not bear the voter's name in full. Our object is not at all to offer incense to the leading lights of the profession, but merely to discover how far our illustrated record of American architecture is imperfect at this time, and to what degree our improved facilities will enable us to fill up the existing gaps, by publishing more or less of the fifty or more buildings which will be enumerated by those who respond to this suggestion.

STATUES AND MONUMENTS OF LONDON.[1] — III.

The Gresham Monument, St. Helen's, Bishopsgate, London.

PASSING from the statues in the open air to monuments in churches or public buildings, we enter upon a much wider range. Great, however, as is the number of men whom London has honored, the places where their memorials are to be found are few. Westminster Abbey, St. Paul's, and the Houses of Parliament almost exhaust the list. There are a few monuments erected by the Corporation of London in the Guildhall. Some of the older churches which have survived the Great Fire of London contain monuments of interest; of these, St. Helen's, Bishopsgate Street; St. Olave's, Hart Street, where Pepys was buried; the Rolls Chapel in Lincoln's Inn, the Temple Church, Chelsea Old Church, and St. Margaret's, Westminster, nearly exhaust the list, although here and there a church may contain an individual monument worthy of a visit, such as Battersea Church, where there is a monument to Bolingbroke by Roubiliac; St. Saviour's, Southwark, where we find the interesting tomb of Gower, the poet; and St. Catherine's, Cree, where Holbein was buried, and which contains a beautiful recumbent effigy in armor of Sir N. Throgmorton, (1570). All these together, including St. Paul's, pale into nothing as compared with Westminster Abbey. It may seem to be a work almost of presumption on my part to refer to its monuments, after the singularly interesting and full treatment which they have received from one who loved the Abbey so well, and whose name will ever be associated with it, — Dean Stanley. His work, however, is mainly historical, and on this side leaves nothing to be desired. On the technical side, and from the point of view of the progress of monumental sculpture, there is much still to be said, far more than I can do in the few pages of an article. If I venture to say anything on this subject, it is that for many years of my life I lived under the shade of the Abbey or in its immediate vicinity, and few people, except those connected with its services, have been more familiar with it. During the last three years I have had to deal officially with many questions in connection with the Abbey. The last time I saw Dean Stanley, I spent some time with him in inspecting the statues of the North Transept, with the object of determining a site for the monument voted by Parliament to Lord Beaconsfield. Speaking, then, with a long experience, I can express my conviction that there is nothing comparable with Westminster Abbey, having regard to its combination of architectural, historic and artistic interest.



Entrance to Chapel of Edward the Confessor, Westminster Abbey.

There is nowhere else in the world so long a range of monuments, from the shrine of the Confessor, the tombs of the Plantagenets, to the monuments of poets and the more recent statues of statesmen, without any break, and all set in a framework so beautiful and so full of grandeur that, much as one may take exception to many of these works of monumental sculpture, they sink into insignificance in the building, and do little or nothing to diminish the beauty of the whole, while they add to its interest. If any one doubts this, let him enter the Abbey by the door of the North Transept, and stepping across the graves of Chatham, Pitt and Fox, pass between the avenue of statues of Chatham, of the two Cannings of Palmerston, of Peel; or let him enter by the Poets' Corner, and treading the tombstones of Samuel Johnson, Garrick, Macaulay and Dickens, find himself among the monuments and records of Chaucer, Milton, Dryden, and a host of others, the boast of English literature; or let him stand in the choir, behind the altar, with the noble range of tombs of our early kings on either side; or let him be present on an occasion when one of the great men of England is laid in his last resting-place, amid a crowd of all that is most eminent, and with a pomp so solemn, so touching, that no other ceremony compares to it. It may be asked with confidence whether any other building can produce the same impressions of grandeur, dignity and beauty combined with those of historic and national interest.

Shrine of Henry V, Westminster Abbey.

Tomb of Queen Elizabeth, Westminster Abbey.

The monuments may be studied best under the following groups: —

1. The monuments and tombs of our kings and their families, beginning with the shrine of the Confessor, and ending with the monuments of Elizabeth and Mary.

The oldest of these monuments are ranged on either side of the choir at the back of the altar; the tomb of Henry the Fifth, with a chantry of its own, is at the east end of the Chapel of the Confessor. These monuments cover a space of time from 1272, the date of the translation of the Confessor to his present tomb, to the re-burial of Mary, Queen of

[1] A paper by Mr. G. Shaw Lefevre, reprinted, with added illustrations, from the *Nineteenth Century*. Continued from page 76, No. 477.

Scots, in 1606, a period therefore, of 234 years. Nothing can better show the growth of art than the difference between the simplicity and grandeur of the earlier monuments, and especially those of Henry the Third and Richard the Second [see Illustrations], and the lavish wealth of decorations upon those of Henry the Seventh, Elizabeth and her sister Mary, and that of Mary, Queen of Scots. It will be observed to what extent foreign artists were called in for the purpose. The figures of Henry the Third, and of Queen Eleanor, wife of Edward the First, are by competent authorities said to be by an Italian sculptor; that of Philippa, wife of Edward the Third, by a Hainault artist; the monument of Anne of Cleves by an artist brought over from Cleves for the purpose; that of Henry the Seventh and his wife, and that of Margaret, Countess of Richmond by Torregiano, the rival of Michael Angelo; that of Elizabeth and her sister Mary by Maximilian Poultraine and John de Critz; and that of Mary Stuart by Cornelius Cure. Not the least value of the earlier monuments is that the recumbent statues are evidently likenesses, and tally with the personal descriptions we have of these monarchs. The figure of Henry the Third is represented as small and delicate, two long curls of hair fall from under his coronet; there is a beard and moustachios: there is a great charm in the simple pose of the statue and its flowing drapery. The material is bronze, and is said to be the first specimen of metal-casting in England. The figure of Richard the Second is also in bronze; it is habited in a religious costume; his queen is represented with a pleasing countenance; their hands were originally clasped, but the arms have unfortunately been broken off. In the effigy of Edward the Third (1377), the face is long, and there is a remarkable fall of the lower lip. The hair is long and slightly curling, and the beard is an amply flowing one. The drapery is treated conventionally. The effigy of Henry the Fifth is now but a rude wooden form on which were fastened plates of silver gilded, long since stolen from the monument. How splendid these tombs must have been, and indeed the whole of this part of the Abbey, when in the time of Henry the Seventh they retained all their magnificence, and when the profusion of minor statues and decorations about them was still unbroken.

Tomb of Mary, Queen of Scots, Westminster Abbey.

The most beautiful, and indeed the finest monument in England, is that of Henry the Seventh. Lord Bacon speaks of it as "one of the stateliest and daintiest in Europe." Torregiano was engaged on this work for nearly six years, and the result was a masterpiece. During this time he also produced the beautiful tomb of the Countess of Richmond, mother of Henry the Seventh, and the recumbent statue of Dr. Young, Master of the Rolls, in the Rolls Chapel, which is also of great beauty and simplicity of style.

Tomb of Henry VII, Westminster Abbey.

He also designed a tomb of extraordinary magnificence in the early years of Henry the Eighth for that sovereign and his queen. It would have been the most splendid monument ever conceived. The particulars of it are to be found in Speed's "*History of England*." It would have been adorned by 133 statues, 43 bas-reliefs in gilt bronze, and by 20 columns of porphyry and alabaster. Like Inigo Jones's splendid design for the Palace of Whitehall, this design for the tomb of the great Tudor king was never executed.

It is singular that although the royal burials were continued from James the First to George the Second, inclusive, with the exception of Charles the First, James the Second, and George the First, yet no monuments were erected to them in the Abbey, but, as already shown, statues in the public places appear to have taken the place of monumental tombs.

2. The second group which may be studied together consists of the tombs of the early feudal chiefs, some of them closely related to the sovereigns, and the purely Gothic monuments of a somewhat later period.

The best examples of these in the Abbey are the tombs of Edward Crouchback, Earl of Lancaster, 1273, an exceedingly noble and dignified effigy [see Illustrations], and of Aylmer de Valence, Earl of Pembroke, 1323, nephew of Henry the Third. Flaxman says of them: "They are specimens of the magnificence of such works of the age; the loftiness of the work, the number of arches and pinnacles, the lightness of the spires, the richness and profusion of the foliage, the solemn repose of the principal figures representing the deceased in their last prayers for mercy, the delicacy of thought in the group of angels, and the tender sentiment of concern variously expressed in the relatives ranged in order around their basements, forcibly direct the attention and convey the thoughts, not only to other ages, but to other states of existence."[1] Of others of the same date are the tombs of William de Valence, Earl of Pembroke, half-brother of Henry the Third, with an effigy of wood covered with gilt copper, and with beautiful specimens of enamelled metal on the shield, belt and cushion [see Illustrations]; of John de Eltham, Duke of Cornwall, 1334, a noble figure [see Illustrations] with legs crossed; and of Simon de Langham [see Illustrations], Archbishop of Canterbury, 1376, a beautiful alabaster figure, in excellent preservation, on an altar-tomb in the Chapel of St. Benedict.

Besides these, in somewhat later times, there are the purely Gothic tombs of Sir Barnard Brocas, 1400, in the Chapel of St. Edmund; of Ludovick Robsart, 1432; of Philippa, Duchess of York, 1480; and lastly, the well-known monument of Sir Francis Vere, 1600, where, above a recumbent figure of Vere himself, four knights kneeling support the arms of the dead man — a monument in imitation of that to Engelbert, Count of Nassau, at Breda. This monument is one of the most beautiful in the Abbey. It is of this that the story is told of Roubiliac, that in reply to a question thrice repeated by one who found him standing with his eyes riveted on the fourth knight, he said, "Hush! hush! he will speak presently." The monument is somewhat of a survival, for most of the monuments dating between 1500 and 1600 have more or less of the Renaissance about them.

Monument of Sir Francis Vere, 1600, Westminster Abbey.

The purely Gothic monuments in London, elsewhere than in the Abbey, are few and far between. There are the effigies of the Knights Templars in the Temple Church, and there is the canopied tomb of Gower in St. Saviour's, Southwark.

3. The third group consists of monuments with recumbent statues mostly canopied, with more or less of architectural adornment in the Renaissance style, erected for the most part between 1500 and 1650. Of these there are many noble and interesting specimens in the Abbey well worthy of attention.

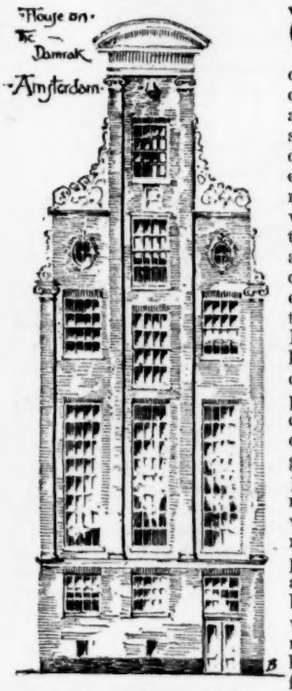
Perhaps the most interesting of all the monuments of this group is that of Sir H. Norris (1600), whom Queen Elizabeth so loved, not merely for his own sake, but because of his father, who alone of those who died on the scaffold with her mother, Anne Boleyn, denied her guilt. Norris and his wife are represented under a canopy; on either side are three kneeling figures, life-size and armored, the six sons, four of whom died in battle and one alone survived the father. The monument is of great size, and the artist, whose name is unknown, has been most happy in depicting the parents reposing in death, while their sons are praying around them.

There is also the monument of Sir Charles Daubeney and his wife, 1507, a recumbent statue on an altar-tomb, the four corners to which are purely classic, showing the influence of the Renaissance; this is in the Chapel of St. Paul, where also are the monuments of the Countess of Sussex, 1589; Dudley Carleton, 1631, half recumbent; and other monuments to many noble ladies of that period; the Marchioness of Winchester, 1586; Frances, Countess of Hertford, 1598; the Burleigh Monument, 1588; Sir John Pickering, 1596; Sir R. Picherall, 1571; Countess of Suffolk, 1563; Lord John Russell, 1584;

[1] Flaxman's "*Lectures on Sculpture*," p. 20.

the Earl and Countess of Exeter, 1608. It is unnecessary to name more; the Abbey is very rich in them. In most of them the figures are recumbent, on altar-tombs, with canopies, or architectural structures against the walls of the church, often reaching to a great height, and always showing more or less of classical detail about them, while on the other hand the Gothic treatment of many of their parts is not abandoned. The most sumptuous monument of this period is that of Villiers, Duke of Buckingham, 1628, in the central aisle of Henry the Seventh's Chapel [see Illustrations]; and one of the most beautiful is that of Lord Middlesex and his wife, 1645, in the Chapel of St. Benedict. It is also one of the last of its type, for already, under the influence of new ideas, and of a fresh generation of sculptors, the fashion of recumbent statues and altar-tombs was going out of date. We have many fine specimens of this style in other parts of London, such as the monuments of Lord and Lady Dacre in old Chelsea Church; of Jane Dudley, Duchess of Northumberland, mother-in-law of Lady Jane Grey, in the same church; of Sir Walter Mildmay at St. Bartholomew's the Great; and of many city magnates in St. Helen's, Bishopsgate Street. It is to be noticed how many of these monuments are erected in honor of noble ladies, and that in almost all cases the wife is lying on the altar-tomb beside her husband. In the next generation ladies are treated very differently, and very few of them are represented on the monuments to their husbands. In the last half-century only two ladies have been buried in the Abbey.[1] It is also to be observed that we know the names of but very few of the sculptors or architects of these splendid tombs.

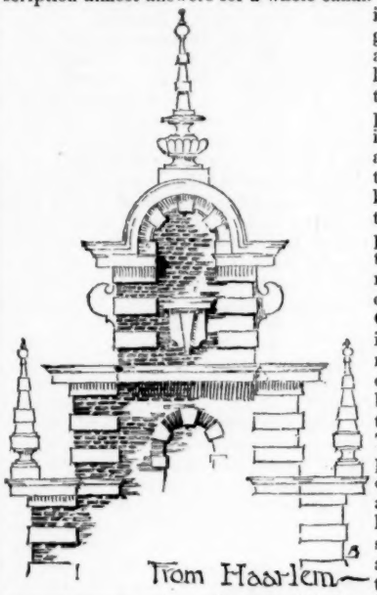
A WINTER TRIP THROUGH HOLLAND.



UNTIL comparatively a few years ago, Holland was considered as being too much out of the way, and possessing too little of interest for the ordinary tourist, and even the architectural student seldom found his way in among the dykes and windmills; but the painters set the fashion by making summer excursions thither, returning with canvasses so full of interest that the tourists soon followed, until at present the attractions of the country are apt to be over estimated, especially since Abbey and Boughton have done so much to popularize Dutch possibilities. Fergusson in his "*History of Architecture*" speaks of the people as being of nearly pure Aryan blood, whence, in accordance with his ethnological theory of architecture, nothing of any great or lasting merit can be expected of them in the way of monuments. At the time Fergusson wrote, the so-called Queen Anne had not yet taken its place among the imported English styles of building, and Dutch architecture was but little known. Still it is doubtful if he would see fit to change his opinion now, even though his countrymen have inspired themselves so freely from the land in question. Holland possesses no architectural monuments, properly so called; but on the other hand it abounds in numerous examples of domestic architecture, especially in combinations of brick and stone constructions, which certainly have the merit of being straightforward and honest in design, well adapted to the climate of the country, generally pleasing in effect, and full of suggestive ideas to one who expects to practice architecture in a land like North America.

On first entering Holland, an American is apt to be much impressed with the number of things he encounters which have a familiar air. After all, Yankee ideas were not exclusively derived from old England. It will be remembered that the first settlers in Massachusetts Bay sailed from Leyden, and had not for a number of years been residents of the mother country. They brought many Dutch customs with them, besides the tall, sugar-loaf hats and the knickerbockers, and the remembrance of their Holland homes was strong enough to show through all the building operations which took place during the early days of the colony. What we now designate as the old Colonial style is very nearly akin to much of the old brick architecture still existing in many portions of Holland. Nor does the resemblance cease with the exterior. The typical swell-front Boston house is essentially English in plan, but our detached houses seem to follow very closely in arrangement the private dwellings, such as are still found in the suburbs of Haarlem. And the porches and verandas, the familiar square house with a roof hipped all around, the overhanging eaves, none of these features seem to find any prototype in England, whereas all of them are used in Holland, and used in a manner so much like our own, that a New Englander suddenly dropped in the Heerenweg, just outside of Haarlem, would with difficulty be persuaded that he was not in one of the new suburbs of Boston. Two centuries of building operations, and constant intercourse with other countries, have not sufficed to materially change the typical plan brought by the Pilgrims from Holland; and with all our improvements in methods and details, we have left the old traditions only to return toward them in these latter days. Compare Salem, Mass., and Haarlem, Holland. The inhabitants of many of the respective houses could change places and hardly appreciate the difference. Not that Salem is in anywise a Dutch town, or that Hawthorne would have seemed at home in Haarlem; but the resemblance between some of our early Colonial architecture and its North Sea prototype is too strong to be overlooked.

The Dutch are not a progressive people; they got over all that when William of Orange left for England, and their ways of living and building have changed very little since then. They know they build their houses well; they are sure they keep them clean, and any more they do not ask for. Hence there is a simplicity in the way they use brick, which arises from naturally met conditions, and which is productive of some very pleasing results. It will be remembered that the greater part of Holland lies several feet below the sea level, consequently stone is rare and expensive, and in the larger cities many of the houses are constructed without any stone at all, the window-sills, even, being of rounded brick. Amsterdam in particular is full of quaint old brick houses. The long canals are lined with them, many stories high, crowned by curious gables, the roof seldom showing any more than is indicated by the irregular outline of the top. Many of the houses have settled badly, though this is due to the insecure foundation afforded by piling, the masonry usually appearing to be very well laid. The style of finish is so uniform that one description almost answers for a whole canal. A base several feet high is painted black or dark green. The bricks above are painted a dark chocolate, very strong in tone, the color apparently being put over the whole, though in some cases the joints are lined off with a darker tone. Occasionally a house is met with where the bricks are left unpainted, but even then they are burnt very dark, not a dingy red, but a clean, deep reddish brown. Only in the newest houses is light brick or white mortar used, and then the effect is far from pleasing by contrast with the quiet tones of the old work. The window-frames are painted white, the sashes dark green, or occasionally white, though the heavier color seems more successful. The muntins are always very large and the staff-beads three inches or more square, set nearly flush with the face of the wall, and perfectly plain except for a small bead at the inner edge. In no cases do the reveals appear to be more than four inches. The sashes slide like ours, the lower one only being weighted. The gables generally follow some pseudo-classic outline, with a crowning cornice of wood. At the sides are some ornamentations in stucco, counting for absolutely nothing as detail, but chiming very pleasingly with the general effect of the building. The cornice and stucco-work are painted white. Finally in the highest part of the gable is always a projecting beam and tackle for hoisting goods to the loft, which is used as store room.

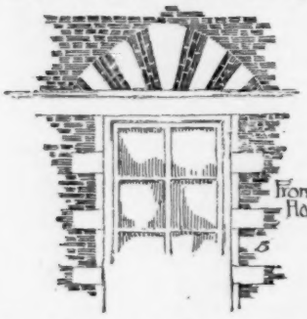


This description implies a building about as simple and cheap as could be imagined, but by a judicious use of long pilasters, a few bits of detail in the way of caps and bases, and a variation in the contour of the gable, an almost endless variety of fronts is obtained, each following the general scheme, and so giving the needed quiet and congruity to the looks of the street, while in every case there is an opportunity for individual treatment. Excellence and cheapness are not usually found combined in a series of street fronts; and while Amsterdam can hardly be said to possess handsome streets, some portions of the Kloveniersburgwal and the Keisers Gracht have a quite dignified appearance that goes far toward making up for lack of any monumental magnificence. In fact the Dutch are too intensely practical and personal in their nature to ever rise to a monumental conception.

There are no good churches in Holland. Of the Cathedral of Utrecht, the best part tumbled down, and was removed long ago, while the St. Jan's Kirk at Bois-le-Duc shows too many foreign influences to be classed as a home product. One exception can be made, however. At Bommel is a little church, with a tremendous west tower, recalling some of the best Flemish types; — a good mass and just enough detail for effect; — ending abruptly, but very coherent in design. In few other cases are the churches worth more than a passing glance.

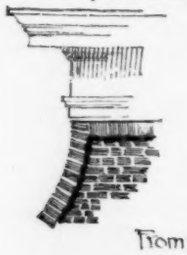
[1] Lady Palmerston and Lady Augusta Stanley.

About the end of the sixteenth century a style of brick and stone architecture was developed in Holland, which can almost be called peculiar to the country, though possessing many points in common with the coeval architecture of Germany and North Belgium. About the best example of this style is the Flescher's or Butchers' Hall in Haarlem, some sketches from which are given herewith. The mouldings and details are quite well chosen, and, with the excellent effect of color, from the contrast of the deep, cherry-red brick and the pale, yellow sandstone quite atone for the degree of fussiness due to a frequent use of small pyramidal pinnacles, and curved horns on the sides of the gables. There are two other very excellent buildings of this class in Holland, the old Stadhuis at Leyden, and the Asylum at Groningen. The Province of Friesland, the most northerly of Holland, is quite rich in brick and stone work of the sixteenth and seventeenth centuries, but it is so far out of the line of travel that it has been very little explored.



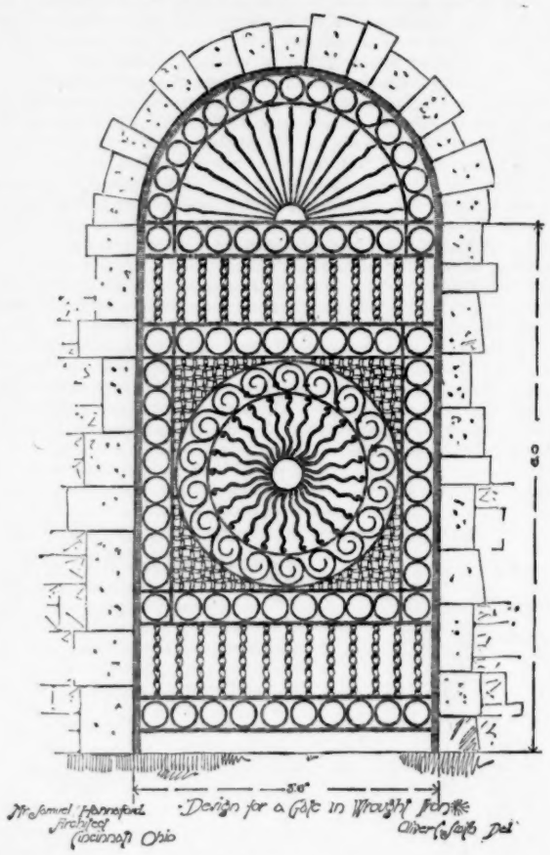
It is hardly fair to say that the present treatment of English Queen Anne work in brick and stone is taken directly from Holland, though even a traveller passing hastily through the country cannot but be struck with the extent to which the present generation of British architects have been enabled to draw on the comparatively slight architectural resources of Holland. In many respects the modern inspirations are ahead of the old work, though time and congenial surroundings give an air of quiet good taste and respectability to the Dutch buildings, which even Flemish bond and imported workmen do not wholly succeed in reproducing on the Chelsea embankment. The Dutch work seems good, first, because it is unobtrusive; secondly, because a good effect of color is usually produced; and thirdly, because, however meaningless some of the stucco ornamentation may seem, or however barren the front may be of detail, one feels that for the whole there was a definite purpose in the mind of the builder, and that the design is consistent with that purpose, being neither a half-Greek temple nor an abortive Renaissance palace, but a simple, straightforward Dutch house — a little flat-footed, if you like, but substantial and satisfactory; and finer finish or a greater profusion of detail could hardly help so simple a model.

From an architectural point of view, a fortnight's trip through Holland will well repay the student, while even a six months could be profitably devoted to it. But the country possesses another form of attraction in its picture galleries, which in some lines of art are richer than anything else in Europe. They are all too well known to require any description. Surely the architect can be an artist, as truly as he who handles the brush, and if, after a stay among the old tone-masters of the Dutch galleries, a man does not come away with a better eye for color and a truer feeling for mass and breadth in design, it is no one's fault but his own. A good deal of architecture is found in some of these canvasses. Old Pieter de Hooch and merry Jan Steen gave us as good insights of the interiors of the old Dutch homes as Haarlem or Amsterdam can now give us of what the exteriors may have been. The painting in the Museum of The Hague entitled "The Young Housekeeper," by Gerard Douw, presents a study of a Dutch interior such as could hardly be found existing today — rich, heavy draperies artistically looped back from the quaint, deep-mullioned window, a suggestion of a fine old staircase in the background, a curiously-wrought brass chandelier hanging from the oak ceiling, and a few bits of delicately-carved furniture, all in a glow of warm tones centering on the mother and child in the foreground. It is only one of the many old paintings peculiar to Dutch art, from which both painter and architect can draw ideas of immediate practical value in their respective professions. The old Dutch architects built homes, the old Dutch artists painted homes, and both left behind them a wealth of home ideas, from which we, who are so nearly allied to them by race and habits, can draw valuable suggestions.



C. H. Blackall.

A ONE THOUSAND FOOT TOWER.



OUR builders in this age, which is justly styled the age of steel and iron, have so thoroughly learned to take account of the resistances of these metals, that in very truth there seems no conception, howsoever grandiose it may be, before which they recoil.

For a long time Americans have held the first rank in these bold experiments, which characterize the studies of that genius which pleases itself in pushing to its extremest limit the resistance of metals; but rivalry has sprung up as soon as, behind the accomplished *tours de force*, was seen rising up the possibility of carrying out works which had been declared absolutely impossible of realization. It is thus that we have seen valleys, which had formerly been reputed unbridgeable, crossed by a single elegant arch, as in the case of the Douro and Garabit bridges. It is thus that we stood wonder-struck before the gigantic iron skeleton of the statue of Liberty Enlightening the World, offered by France to the United States, which surpasses in dimensions the famous colossi of antiquity.

At this moment the idea of a celebration without parallel in commemoration of the centenary of 1789 haunts the imagination of our artists, our architects and our builders. A great world's fair decided for this date, with proportions that no other enterprise of the kind has ever reached in the history of the world, serves for the moment as a basis for a myriad of stupendous projects whose assemblage would join in giving to the occasion which is now being elaborated a glory worthy of the nation which prepares it, and in harmony with the ideas of progress which it is destined to symbolize.

These grand projects will see the light in due time. Their artistic originality merits that they should be examined, and even studied with care, together with the central idea which is the celebration of the centennial. For when a project takes on sufficient body to become practically possible aside from mere financial considerations of carrying it out — which are considerations of another kind — and when the project by reason of its extent and novelty solves difficulties considered up to that time insurmountable, it carries with it a real teaching which cannot be passed over in silence: a work of which the possibility is demonstrated virtually possesses an existence which takes it out of the sphere of mere conception. Such is the case with the monumental tower, 300 metres in height, proposed by M. G. Eiffel as an annex to the Exposition of 1879, and studied to this end by MM. E. Nouguier and Kœchlin, the engineers of his house, and by M. S. Sauvestre, architect.

The colossal requirements of the problem have not stopped them. They seem to consider them only a natural extension of the enormous works in metal which they have already executed, and they do not even admit that even this must be considered as the maximum result which can be obtained through the assemblage and superposition of metal work.

It is to 1875, to the time of the Centennial Exhibition at Philadelphia, that one must turn to search for the idea of constructing a

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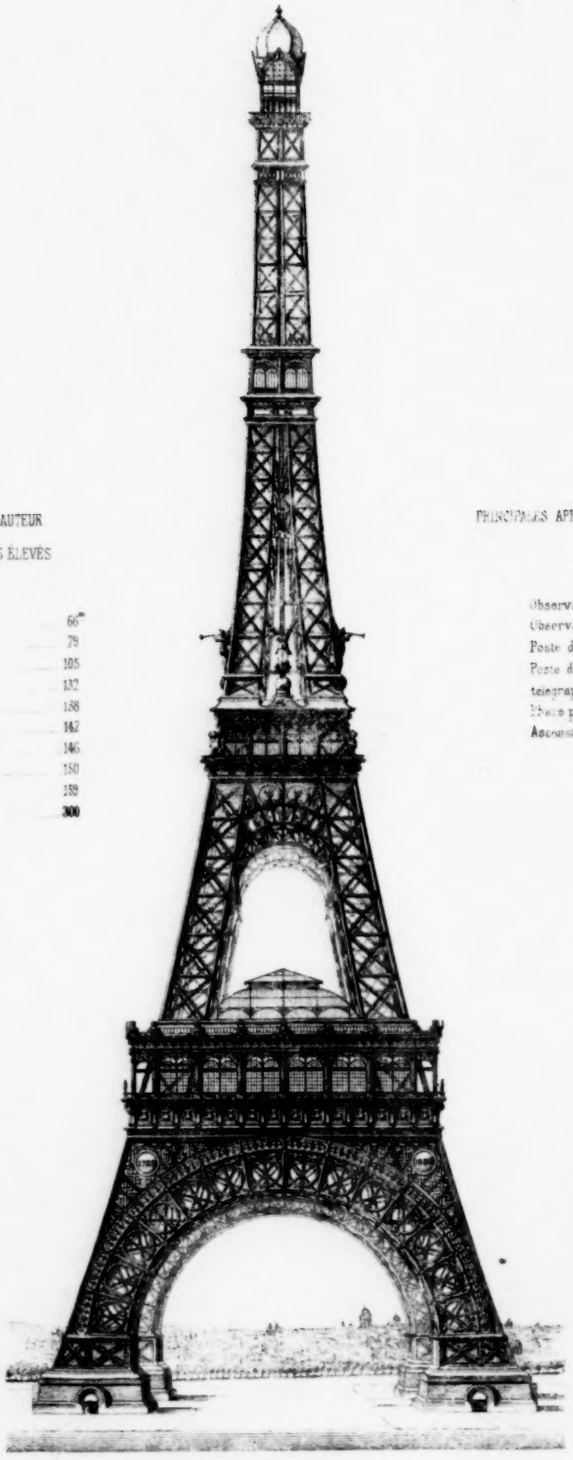
TOUR DE 300 MÈTRES

TABLEAU INDIQUANT LA HAUTEUR
DES MONUMENTS LES PLUS ÉLEVÉS

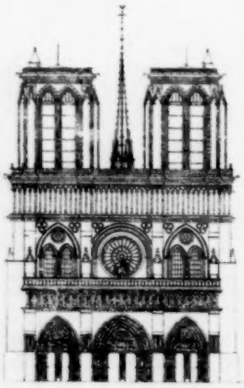
Tours Notre-Dame	66m
Pantheon	79
Flèche des Invalides	105
St Pierre de Rome	132
Cathédrale de Vienne	138
Cathedrale de Strasbourg	142
Gde Pyramide d'Egypte	146
Cathédrale de Rouen	150
Cathédrale de Cologne	159
Tour projetée	**300**

PRINCIPALES APPLICATIONS DE LA TOUR DE 300m

Observatoire météorologique
Observatoire astronomique
Poste d'observations stratégiques
Poste de communication par
telegraphe optique
Phare pour l'éclairage électrique
Ascension du public à 300m de hauteur



Notre-Dame de PARIS
(à l'echelle de la Tour projetée)



Arc de Triomphe de l'Etoile
(à l'echelle de la Tour projetée)

PROJET DE MONUMENT COMMÉMORATIF

A ÉRIGER A L'EXPOSITION UNIVERSELLE DE 1889

Presenté par M. G. EIFFEL, Ingenieur-Constructeur.

Projet de Messieurs E. NOUGUIER, M. KOECHLIN, Ingrs de la Maison EIFFEL et S. SAUVESTRE, Architecte

FROM LE GÉNIE CIVIL

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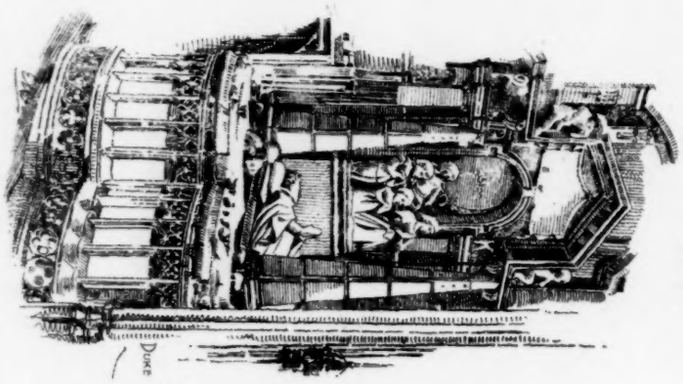
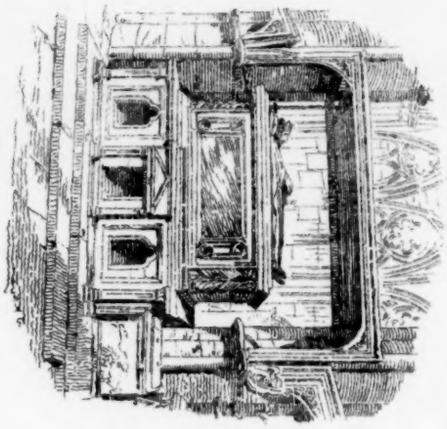
LONDON MONUMENTS AND STATUES

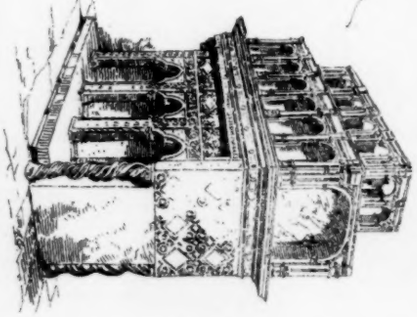
No. 3.



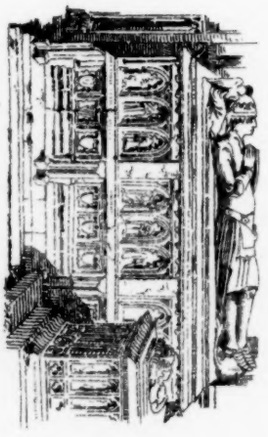
GEORGE VILLIERS DUKE OF BUCKINGHAM. WESTMINSTER ABBEY



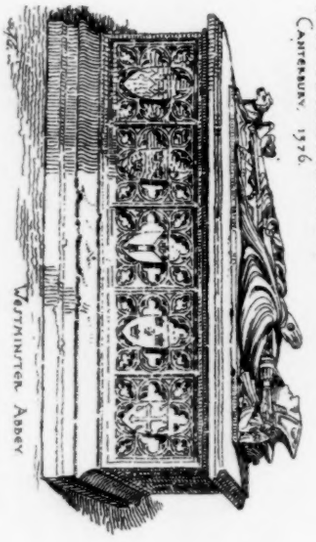
TOMB OF HENRY III. WESTMINSTER ABBEY



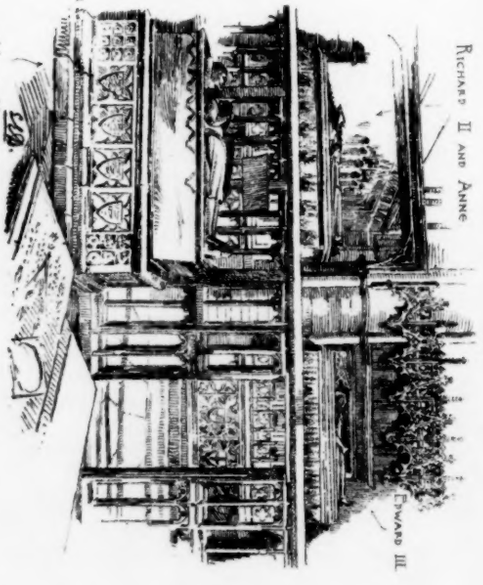
TOMB OF EDWARD THE CONFESSOR. WESTMINSTER ABBEY



JOHN DE ELTHAM DUKE OF CORNWALL 1336. WESTMINSTER ABBEY



SIMEON DE LANGHAM ARCHBISHOP OF CANTERBURY. 1376. WESTMINSTER ABBEY

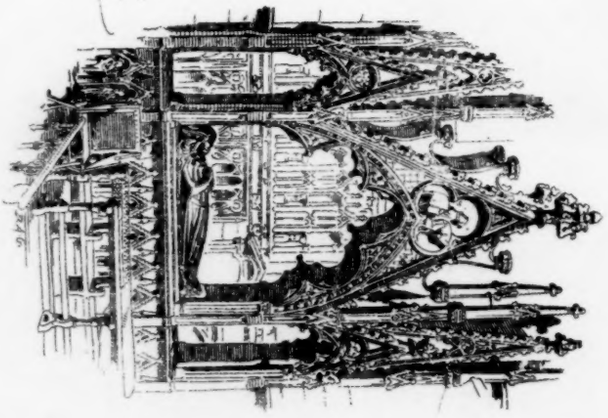


RICHARD II AND ANNE

EDWARD III

IN WESTMINSTER ABBEY

WM. DE VALENCE.



EDWARD CROUCHBACK EARL OF LANCASTER 1275. WESTMINSTER ABBEY

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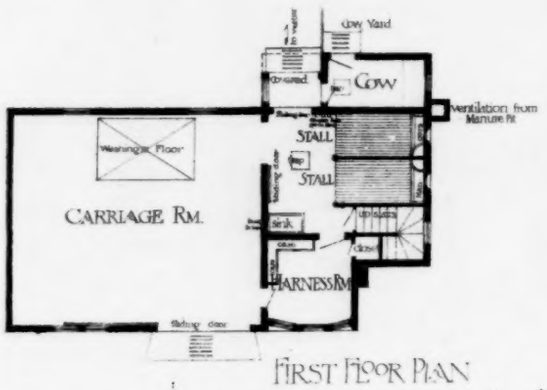
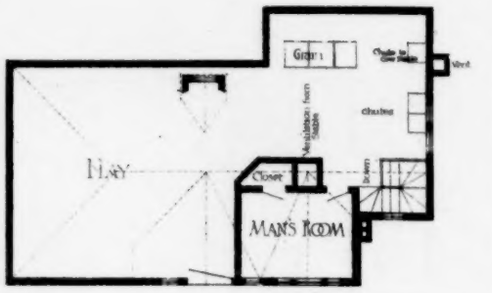


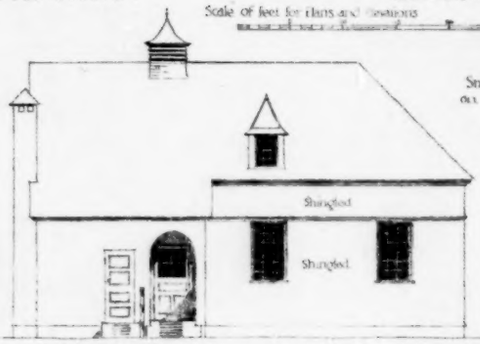
FIRST FLOOR PLAN



SECOND FLOOR PLAN

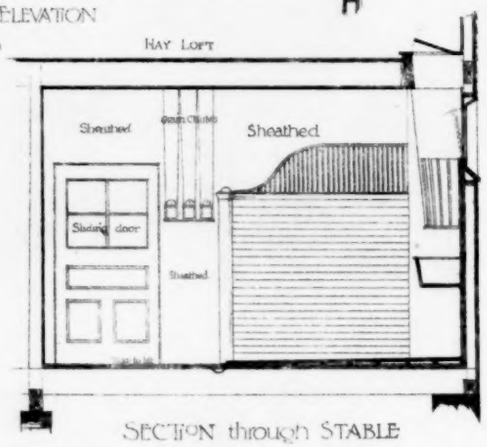
Scale of feet for plans and elevations

SIDE ELEVATION



REAR ELEVATION

Scale of feet for Section through Roofs and details



SECTION through STABLE

General Description of Stable:

The earth to be excavated only beneath Horse and Cow Stable where the ground will be concreted and form a manure pit. This will be thouroughly ventilated by means of shingled air duct, which is carried up above roof outside the wall of Building. The frame of spruce left rough in Carriage Room, Cow Stable and Hay Loft, 2nd Story. The Stable, both walls, ceiling and stall partitions to be sheathed. The Harness Room and Man's Room plastered. The outside wall surfaces and roof to be shingled, plain; the roof shingles to be dipped in creosote stain before being laid. All finish on outside will be machine mouldings and very simple.

Estimated Cost $1474.36

AMERICAN ARCHITECT COMPETITION for SMALL STABLE: "DORIS" (A. H. EVERETT) to cost about $1500.

PERSPECTIVE SKETCH

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Examples of Dutch Brick Work

Sketched by C.H. Blackall.

House on the Herengracht Canal Amsterdam.

Types of Gables.

House on the Keizersgracht Canal Amsterdam.

From Fletchers' Hall Haarlem.

House on the Keizersgracht Canal Amsterdam.

Window Head Cornice.

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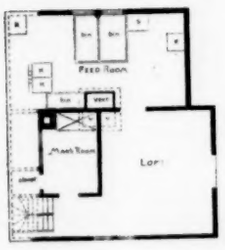
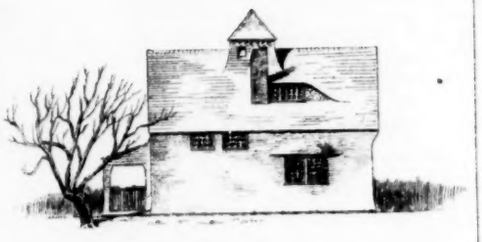
SOUTH ELEVATION.

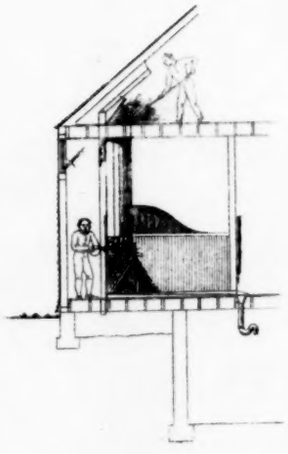


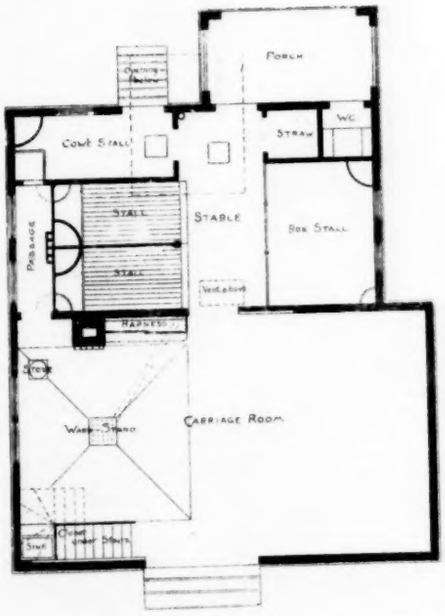
PLAN OF LOFT.



EAST ELEVATION.

PERSPECTIVE VIEW OF NORTH AND WEST ELEVATIONS.





PLAN OF GROUND FLOOR.

AMERICAN ARCHITECT COMPITITION.

A COUNTRY STABLE.

Design submitted by "A COUNTRY GENTLEMAN." (T. HENRY RANDALL)

HELIOTYPE PRINTING CO. BOSTON.

tower 1000 feet high. It resulted in nothing, in spite of the infatuation to which this conception had given birth in the press of the New World. Perhaps the American builders shrank from the uncertainty of such a study and the practical difficulties to be overcome in such a problem.

The most lofty monuments constructed up to this time show in short that it is difficult with materials where stone plays the principal rôle, to surpass a height of 150 or 160 metres, a maximum very rarely attained. The heights of the most lofty existing monuments are here given: —

The Cathedral of Cologne, 159 metres.
Cathedral at Rouen, 150 metres.
The Great Pyramid, 146 metres.
The Cathedral at Strasburg, 142 metres.
Cathedral at Vienna, 138 metres.
St. Peter's at Rome, 132 metres.
Flèche of the Hôtel des Invalides, 105 metres.
Pantheon, 79 metres.
Balustrade of Towers of Notre Dame, 66 metres.

Iron alone makes it possible to exceed these heights. Only metal allows of supporting the vertical reactions of the structure, and of resisting vibrations resulting from the action of the wind, which is considerable for lofty heights. It is the employment of this metal which allows the authors of the project in question to propose a monumental tower, with which they have no fear of not reaching for the first time a height of 300 metres, that is to say, a height almost double that of the loftiest monument now known.

The metallic structures which have been built in these later years reach a height of about 60 metres, and in the present state of the engineer's art, there are no very great difficulties in reaching a height of 80 or even 100 metres; but the question is quite otherwise with a height of 300 metres. There are encountered in the detailed study of this exceptional case, difficulties analagous to those which would be encountered in the study for a bridge, if one were to pass from a span of 150 metres to one of 300. In fact, to cite only a special point, if one does not wish to multiply the uprights of the skeleton of a bridge pier, he is compelled to employ diagonal straining pieces which surpass practicable limits, and which attain at the base of the pier lengths of more than 100 metres. If, on the contrary, one multiplies these uprights, we arrive at a construction extremely heavy, and with a most deplorable architectural effect. It was therefore necessary to discover a means of construction which should limit the number of the uprights, and yet should permit the separation of the diagonal braces.

It is this that has been realized in the design which we are examining. The skeleton of the tower is composed essentially of four uprights which form the arrises of the pyramid, whose faces are disposed according to a curved surface determined by the theoretical consideration of the effect of wind strains. Each upright has a square section decreasing from the base to the summit, and forms a curved latticed caisson fifteen metres square at the base and five metres at the summit. The spread of the feet of these uprights amounts to 100 metres. They are united at the upper part, and there form a platform ten metres square. The uprights are anchored to the solid foundation at different points. They are bound together by horizontal bands serving as supports to vast chambers, which could be used for the different services which are to be installed in the tower; whether for reunions, for simple amusement, or for a hygienic sojourn in the peculiarly pure atmosphere. The hall in the first story, whose floor is 70 metres above ground, has a superficial area of 5000 square metres. In the lower part of each of the faces is a large arch of 70 metres span, which forms the principal element of the decorative treatment. It gives to the tower a monumental aspect, which is indispensable for the part which it is to play. At the summit is a glazed cupola, whence can be seen an immense panorama 120 kilometres in extent, or where exact observations and scientific experiments can be conducted, as we will indicate farther on. Access would be had to this pavilion by huge elevators arranged in the interiors of the uprights, or by means of a little railroad analogous to those which ascend the slopes of some mountains in Switzerland.

Independently of the attraction and of the monumental *cachet* which this tower would present, and the daring manifestation of the prowess of the engineers of our own time, it would be susceptible of various uses which experience would make known, and among them M. Eiffel now mentions the following: —

First, strategical observations.—In event of war an observer upon this tower could perceive all the movements of the enemy within a radius of 60 kilometres, since he would overlook the heights which surround Paris, and upon which are built the new forts.

Second, communication by optical telegraphy.—In case of investment, or of the suppression of the ordinary telegraph lines, it would be possible from these elevated posts to communicate by optical telegraphy with outposts at a considerable distance from Paris, at Rouen, for instance, where a second observer could be also placed upon a high hill.

Third, meteorological observations.—An observatory established in a tower at an altitude of 300 metres would allow of a practical study, from the point of view of hygiene and of science, of the direction and violence of atmospheric currents, the state and composition of the atmosphere, its electricity, etc.

Fourth, astronomical observations.—At this grand height the purity of the atmosphere, and the absence of mists which frequently cover Paris would doubtless facilitate a certain number of observations which in ordinary times it is often impossible to make in this region.

Fifth, electric-lighting.—One of the most interesting practical applications would be that of lighting by the electric-light the Universal Exposition and a part of the city. By disposing about the tower electric generators of sufficient power, as has already been done in certain American cities, one could obtain a light of which the advantages have been known for a long time, but which have not been realized in such proportions.

Sixth, scientific experiments.—Many other applications could be realized, whether in the domain of practical affairs, as, for example, the indication of the time of day at long distances, or in the domain of science. Having for the first time at command a height of 300 metres, one could study, or could complete the studies already commenced upon many points: for instance, the fall of a body through the air; resistance of the air under different velocities; certain laws of elasticity; study of the compression of gas, or of vapors; the study of the planes of oscillation of the pendulum, etc.

Such are the main features of this vast project, to the realization of which the able and experienced engineers who have conceived it, bring a faith and an ardor of which the body of French civil engineers has a right to be proud.

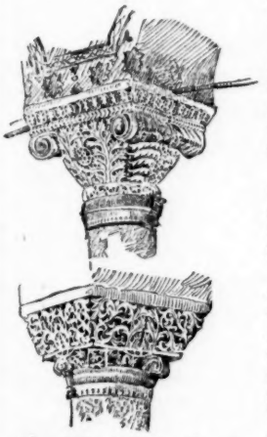
The grandest works of contemporary constructions evidently need not weigh heavily upon the hands of engineers who submit such masses of material to the strict laws of experiment and calculation, and know how to give to a work the colossal imaginativeness and material expression which scornfully reduces it, as one might say, to a simple question of money.

To this Tower of Babel of modern industry, which makes one think of the legends, one can only wish that in place of the confusion of tongues, which interfered with the execution of its Biblical ancestor, it may be built to the sound of that universal language which shall unite the people toward progress without limit, and liberty without excess. If the symbol of this dream is capable of realization, why should not the dream itself come to pass in the future? — *Max de Nausouty in Le Génie Civil.*

THE ILLUSTRATIONS.

[*Contributors are requested to send with their drawings full and adequate descriptions of the buildings, including a statement of cost.*]

PRIZE DESIGNS FOR A $1500-STABLE. BY MR. T. H. RANDALL ("*A Country Gentleman*"), BROOKLINE, MASS.; MR. A. H. EVERETT ("*Doris*"), BOSTON, MASS.; AND MR. F. E. WALLIS ("*Jay*") BOSTON, MASS.



Capitals from the Church of St Sophia. Constantinople

THE jury enables us to publish this week the three designs to which it has been thought proper to award the three equal prizes. Two of these designs bear on their face all the description that is needed; of the third, its author furnishes the following notes: —

A square plan suggested itself as the most suitable one, both from the simplicity and economy in construction which it offered, and the convenience of arrangement.

The quarters for the horses and cow have been placed on the southern exposure of the stable, with the windows on southern, eastern and western sides. From this room a sliding-door opens to the carriage-room, and a small, common door to passage. The stable proper consists of a box-stall (7′ 6″ x 10″), two horse-stalls (4′ 4″ x 9′), the cow-stall, *entirely* separate from the horses, with its own outside door, manure-trap, hay-rack, and feed-box. This I regard as the most important feature of my plan. The horse-stalls are fitted with manger for hay, which comes from loft through chutes, as shown in section. The horses eat from below (from the manger), as is most natural, and not from above, as is usually the case, thereby saving hay which they otherwise get under their feet and over themselves. In the bottom of the manger is an opening into a "dust-flue," allowing the dust and finest hay to be swept out. The feed-box is pivoted at corner, so as to turn through a slide into passage, where it is filled from the feed-chute. From the same passage the cow is fed through a slide into her box. The floor under the stalls is laid with tongue-and-groove stuff, sloping four inches to gutter. Two coats of tar are laid upon this, and then four-inch strips, three-fourths inch apart, with upper face level, and four inches from under flooring at rear of stall. The gutter (of iron) receives the waste-water from the carriage-wash and sink, being kept cleaner thereby. Over gutter is cover of wood, as shown. Opposite cow's stall is chute and closet combined, for fresh bedding. Beyond is the *earth* closet (marked w. c. on plan) for stable.

The porch is intended for drying bedding and blankets in all kinds of weather. Under the manure-traps for cow and horses is the manure-pit, ventilated from its centre, by a five-inch drain-pipe, to four small openings above loft windows on rear elevation.

The man's room is provided with closet under eaves, etc.; a register in floor from stove below. The ventilating-shaft from stable is carried up as shown; also openings from man's and hay rooms, with doors to regulate the draft.

In case no provision has been made for water-supply from reservoir, a large tank can be placed over man's room, under ridge, which can be filled by force-pump in carriage-room. A cistern for rain-water from roof will not be sufficient supply at all seasons, but can be depended upon for drinking water for animals.

With the aid of a practical builder, and after a careful estimate of the cost of material and labor for the construction of this stable, I have added the results of such an estimate, making the total cost $1,443, which allows a small margin for any extras.

"*A Country Gentleman.*"

Boston, December 20, 1884.

Mr. "Jay;"—

Dear Sir, — We propose to furnish the material and do the labor to complete stable as per plans for the sum of fifteen hundred dollars ($1,500).

Yours very truly, McNeil Bros.

LONDON MONUMENTS AND STATUES. — PLATE III.

For descriptions, see article elsewhere in this issue.

EXAMPLES OF DUTCH BRICKWORK. SKETCHED BY MR. C. H. BLACKALL.

See article "A Winter Trip through Holland," in this issue.

DESIGN FOR A TOWER, ONE THOUSAND FEET HIGH.

For description see article elsewhere in this issue.

THE *AMERICAN ARCHITECT* STABLE COMPETITION.

THE JURY'S AWARD.

In judging the designs the plan has met consideration first. In a stable of such small expense, a design must necessarily have but little, if any, waste room, either in ground-space, or in height of stories and roof. The harness-room should be easy of access to both carriage-room and stable. The carriage-room should allow a carriage to enter without interfering with those already in the carriage-room. The entrance of stable from carriage-room should be conveniently placed near where a horse would stand upon being driven into the stable. The disposition of chutes, racks, platforms for bedding, etc., was also considered.

Next to the plan, the general mass of the building was considered — its simplicity, harmony of motives and balance of parts. The details next met consideration, and lastly, the rendering of drawings.

The chief faults throughout were extravagance and complexity of both plans and elevations; too many corners in the first and too many motives in the second, and in most cases a nearer resemblance in the design to a cottage than to a stable. The designs selected for reward having equal awards given them and being equal in general merit, though in different particulars, are placed in alphabetical order.

"*A Country Gentleman.*"— The plan is good, but expensive; there is considerable waste room. The passage at the head of the stalls is a luxury, not a necessity, a criticism which also applies to the box-stall. The harness-case seems slight for a stable that in other ways seems so complete in its fittings, though probably it is ample. The sink should be placed nearer the stable-room. The general mass of the design is its chief virtue; it composes well from any point of view, at once taking a pyramidal form crowned by a generous ventilator, which is also utilized as a pigeon-house. The design lacks a strong base line, either formed by its underpinning or by a strong water-table, and it also lacks projection of its horizontal eaves, especially as it gets shadow in the strong bracketted treatment over the main door and in the arched verge over the hay-door. The rendering is good, but lacks strength, and is labored, especially in the accessories. Details are simple. Figures should have been omitted.

"*Doris.*"— The plan is one of the best presented: compact, with no waste room, and convenient in position of harness-room. There is but little room in the stable-room for fastening the horses while cleaning them, and as the harness-room is perhaps somewhat large for so small a stable part of it might be taken to enlarge the stable-room. This would also give better space for the grain-chutes, which are now somewhat near the horses' heels. A platform for drying bedding would be an additional gain.

The general mass of the stable is simple, except that there are too many gables for so small a structure. If the front could be restudied, and the two gables over hay-door and man's room thrown into one, and that one made interesting in its detail, the scale of the building would be improved; as it is at present the perspective gives the impression of a much larger building than is warranted by the dimensions of the plan. This is owing not only to the number of gables, but also to the small scale of the detail, and the fact that all the accessories, trees, etc., are thrown into the background and made small, which causes the stable itself to appear much larger than it really is. In the item of expense, such a number of windows would form a large factor.

The detail is simple and good: the ventilating openings in the gables should be shorter; the chimney would have been better within instead of outside the building; as shown, it would make a disagreeable perpendicular line. The alternative for ventilator is not so successful as the original design. The rendering is good — clear and direct.

"*Jay.*"— The plan is good: harness-room convenient to both stable and carriage-room; cow-stall should be entirely separated from the stable-room except that entrance should be possible from the latter. The loft is not well arranged for the storage of hay, but probably there is sufficient room. Details are simple and good. Rendering is vigorous and attractive. The eccentric sheaves of foliage which frame the perspective are of doubtful use. First-story windows in rear elevation are badly proportioned — too high for their width. The mass is simple and attractive, and the contrast of gables in sizes and shapes very successful. *For the Jury,* C. H. Walker.

THE PAYMENT OF QUANTITY-SURVEYORS.

St Paul Pindorf House
Bishopsgate · London.

Mr. Justice Denman, sitting without a jury, in the Queen's Bench Division of the High Court of Justice, has just decided an action (Plimsaul *vs.* Lord Kilmorey) which architects, quantity-surveyors, and building-owners of property will alike do well to study. Lord Kilmorey, the owner of the St. James Theatre, engaged Mr. Verity, of Regent Street, in 1878, as an architect to carry out alterations at the theatre, and a Mr. Bradwell was, upon Mr. Verity's recommendation, employed as the builder for the work. The contract between the parties was not, in either instance, put into writing; but as the work went on, the defendant, from time to time, made payments of various amounts of money to the builder, upon certificates given by the architect. Mr. Verity, the architect, in 1879 employed the plaintiff, who is a quantity-surveyor, to measure up all the work that had been done upon the theatre, with a view to a final settlement of accounts with the defendant, and appended the plaintiff's charges to the builder's account, which was forwarded to the defendant; but the latter refused to pay it, upon the ground that the sums claimed by Bradwell, the builder, were excessive. The plaintiff's charges were made at the usual rate of two and one-half per cent upon the value of the work executed and certified by him, and amounted to £187. In the course of the hearing of the present action, it appeared that an action had already been brought by Bradwell against Lord Kilmorey for the recovery of the amounts charged by him; that the amount of the present plaintiff's charges was included in the claim then made, but that the amount had been disallowed by Mr. Dowdeswell, the official referee, to whom the action was referred, and by whom Bradwell's claim was also otherwise considerably reduced. The main question in the present action was, therefore, whether a quantity-surveyor employed by an architect, without the building-owner's directions, is entitled to be paid for his services by the building-owner for whom the architect acts, or whether his claim is against the architect alone. In support of the plaintiff's case, it was contended that by a general custom existing in the building trade, an architect has authority to employ a quantity-surveyor to measure up the work executed, with a view to a final settlement being arrived at, and that, in further pursuance of that custom, the commission payable for the survey is charged in the builder's account, and that on payment of that account the amount of the commission is handed by him to the surveyor. In order to prove the existence of the alleged general custom, the plaintiff and some other witnesses were called, and it was intimated that the plaintiff was also prepared with the evidence of other witnesses in its support; but, at the conclusion of the plaintiff's case, the learned judge gave judgment for the defendant, with costs, clearly expressing, in doing so, his opinion that a jury would hesitate to establish by their verdict the existence of such a custom. There were, his lordship pointed out, grounds

for considering it unreasonable as applied to circumstances such as those presented by the particular case before him, and it appeared, moreover, to be calculated to often prejudice a building-owner.

In the opinion thus expressed, most persons practically acquainted with the subject will, we think, fully concur, for although we are not prepared to deny that a practice such as that contended for by the plaintiff may in some instances have been resorted to, we are unable to adopt the view that it has become so general as to be entitled to be ranked or regarded as a trade custom. Nor do we think that it would be for the benefit of the building trade, or for that of architects and quantity-surveyors, that it should become so. We see many objections of a general nature to such a practice, and particular cases may present other and even stronger objections relating to their special circumstances.

One forcible objection, which is clearly apparent, is that the prac tice is calculated to increase, for no sufficiently good reason, the builder's responsibilities, and to complicate his relations with various persons; and another objection, equally apparent, is that it may have the effect of rendering the payment of the quantity-surveyor's commission dependent upon any arrangement for the settlement of his account that the builder may choose, or may be able to make with the building-owner. In the present case, however, putting aside the question of the validity of the custom, the evidence adduced in its support was held by the learned judge to have been displaced by the course proved to have been taken by the architect himself. With regard to this point, it appeared that before the employment of the plaintiff, communications had taken place between the architect and the defendant's solicitor, in the course of which the defendant's dissatisfaction with the builder's charges and with the amounts certified by the architect was made known to the latter. It also appeared that the architect had at the same time been informed by the solicitor of the defendant's intention to have the work measured by an independent surveyor, to close accounts with both architect and builder, and to take the work out of their hands, and that subsequently to these events a letter had been written by Mr. Verity, the architect, to the solicitor, in which he said that as the charges which he had certified for had been questioned by Lord Kilmorey, it would be well that his surveyor should go over the work with the surveyor appointed by his lordship, and that he should charge his lordship with the expenses he might incur in vindicating the accuracy of the accounts.

On being cross-examined, Mr. Verity admitted that by his surveyor he meant the plaintiff, so that it was made apparent that he employed the plaintiff as his own surveyor, in view of the differences which had arisen between himself and the defendant, and this circumstance was rendered, as Mr. Justice Denman pointed out, the more clear by the intimation — alluding to the charges which the surveyor would make for measurement — that he would charge the defendant for the expenses which he might incur; an intimation which would not only have been unnecessary, but also groundless in the face of the custom sought to be established, had there been any substantial reason for treating the employment as being that of the defendant, and not that of the architect himself. It was, moreover, admitted by one of the plaintiff's principal witnesses, in answer to a question put by the learned judge, that the fact of a dispute having arisen between a building-owner on the one side and his architect and builder on the other, would make a difference in the operation of the custom above referred to — an admission which would seem both to indicate that, even if it existed, it would be inapplicable to the circumstances of the particular case, and that its observance was so far uncertain and wanting in general application as to seriously impair the validity claimed for it.—*Building News.*

PERSUASION, NOT COERCION, A CURE FOR THE EVILS OF MODERN COMPETITION.

BOSTON, February 15, 1885.

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Dear Sirs,— "What are you going to do about it?" says Mr. Illsley, quoting Boss Tweed, in your last issue. I can tell him: talk; nothing more than that. In your "open letter" you offered architects a chance of *doing* something, but what came of it? It was referred to the Board of Trustees of that amiable and sedate body, the American Institute of Architects, who believed the subject, "as brought forward in the open letter," "an important one," and showed how important a matter they thought it by asking the opinion of just *one hundred* architects outside the charmed circle of their membership, which it seems amounts to one hundred and seventy-seven. The chance of doing or saying something on this "important" subject was, then, offered to perhaps ten per cent of the practising architects of the country. Can any one wonder that the architects in the West thought it was about time to have a new association, which would do something other than merely oil its machinery once a year? If this new association will do something to justify its existence, by doing or trying to do what the American Institute of Architects seems to find outside of its rut, I believe that even members of the Institute itself will applaud, and, as individuals, lend their assistance.

As to this matter of competitions, I hold that the attitude of the profession is at once unmanly and insincere. Unmanly, because there is so much lamentation over it, and insincere, as Mr. Illsley proved by his tale of the way St. Louis architects disregarded their pledges when brought face to face with self-interest.

It is the constant cry that the public abuses and takes advantage of the weaknesses of the profession as no other profession would endure, and Mr. Illsley scouts at the idea of lawyers entering into unpaid competitions. I admit that architects and allied artists are the only ones who do enter into competitions, but my belief is that the motives that influence them would influence other professionals, were the chance offered. Suppose an advertisement to appear in the papers to-morrow, announcing that a valuable estate was to be settled, and that various intricacies would attend it which would be made known on application, and that any lawyer who by a certain date should present the best scheme of settlement should have the job and receive the usual percentage which lawyers charge for settling an estate. Can any one for a moment doubt that the relative number of competitors would not be as great as the legal profession is more numerous than the architectural? So with doctors, suppose the prize to be competed for were the headship of a hospital. Clergymen already compete, by showing their paces before the congregation from which they hope to receive a "call." It is not fair to contrast the behavior of one profession with that of another, unless the conditions under which they are to be compared are made somewhat analogous.

No: architectural competition is legitimate, and all this outcry is illogical and unmanly — just what one would expect from the "soft-handed" ones Mr. Sedding makes so much fun of. The key to the matter is that architecture concerns matters of taste, and matters of taste, rightly or wrongly, concern every one, the public quite as much as the architects. To say that the proper way to obtain a satisfactory design for your own house or your own town-hall is to entrust it to the skill of some "well-known architect," is to preach rank nonsense. It is a matter of taste that is to be satisfied. Whose taste; the well-known architect's, or your own? You want a suit of clothes and you usually trade with a "well-known" tailor, so you go to him; but if he does not happen to have the goods you want, do you let him make up a suit out of goods that do not please you, or do you hunt up another and another tailor until you are satisfied? Of course you do this last, and what is this but compelling these several tailors to enter a competition to meet the requirements of your taste? It would be as unmanly for the tailors to raise an outcry and say that it wasn't just to expect them to carry a line of goods unless they unfailingly meet the taste of every comer, as it is for architects to whine because the public expects them to exhibit *their* line of goods before selection. It is as much the right of every man or body of men to "pick and choose" in the matter of a design for a building, as in the selection of their Thanksgiving turkey.

Any architect who nowadays takes part in a competition generally does so after a full knowledge of the special conditions, and a general knowledge of what the results usually are, and a self-respecting and manly man should take his discomfiture in good part, acknowledging that competition is the law of life, and not raise this continuous wail, which does more harm to the profession than any other one thing, as it lowers the dignity of the manhood of all who bear the name. These scrambles are generally as bad as bad can be, unjust in their conditions and unfair in their operation, but they cannot be bettered by talk alone. The American public understands a bargain thoroughly, and it is not to be blamed for offering the sharpest one it can devise; but as it takes two to make a bargain, the fools who accept the proffer have little claim to sympathy, for the terms would have been changed, without a doubt, if there had been no takers.

The public is as human as any body who is not in search of a design, and it resents any attempt to coerce it, particularly in matters of taste. Hitherto all attempts at effecting a better routine have been coercive in their nature, and it occurs to me that a change is more likely to be effected by persuasive measures than by steps compulsory. The only suggestion I can offer is one which would require much self-devotion to carry out, — but there may be something in it.

Suppose an invitation containing the usual restrictive clauses and insulting stipulations which debar self-respecting architects from touching the thing to be issued to-morrow. The chances are good that the party signing the call would receive from a dozen "well-known" architects remonstrances, homilies and essays pointing out the monstrosity of his presumption. Now instead of this, suppose a dozen or more well-known architects should band together and write to the offending party, saying, "Dear sir, we, who are severally the architects of the following well-known structures, cannot take part in your competition under its present unprofessional conditions; but if you will modify them so that they shall read thus and so, we will all then take part, and do our best work for you to choose from. Consider whether it is not for your advantage to select from the work of twelve men like ourselves — to say nothing of all the others — than to have us and all like us, of attested ability, refrain from aiding you." This is Quixotic, no doubt, but it would unquestionably be effective, and would not need to be continued many times. The public knows a good thing when it sees it, and just so soon as it is proved that their way is not the best for them, they will abandon it.

There is of course no chance of such a scheme being carried out if it is to be left to the unsupported philanthropy of a few individuals, but if the profession at large will take it up and support these dozen or more "well-known architects," by each contributing a dollar or so, a fund could be easily raised each time which should,

when divided amongst the twelve or more champions of reform, fairly reimburse them for the outlay of thought and time expended for the common good of professional advancement.

Until some such attempt at persuasion as this has been made, the last word in the matter of competitions has not been said, and all complaints and repinings are premature. At any rate, if you architects of this country will not *do* anything to help yourselves, for Heaven's sake don't whine about it.

Very truly yours, W.

[This scheme, if properly supported, might effect what our correspondent hopes. Now, who will support it, either with hand or purse? If there be more virtue in deeds than in words here is a chance to discover. — Eds. American Architect.]

PLANS FOR A TOWN-HALL.

Chicago, Ill., January 23, 1885.

To the Editors of the American Architect: —

Dear Sirs, — Will you please be kind enough to describe a practical ground-plan for a gymnastic hall (Turner Hall) if possible? The membership is from 300 to 400. Hoping to receive an answer.

Yours respectfully, John Neebe.

THE HISTORY OF ROMAN ARCHITECTURE.

Burlington, Io., February 12, 1885.

To the American Institute of Architects: —

Dear Sirs, — Please inform "Roman" through your valuable paper that the greatest and most exhaustive work upon Roman architecture, is by Lugra Canini, the great commentator. Thirty volumes, price about three thousand dollars, published in the Italian language only. The writer thinks that by the time "Roman" of Denver, has got as far as the end of the last volume, he will be the best posted architect on Roman architecture in America. C. A. Dunham.

KEENE'S CEMENT.

New York, February 10, 1885.

To the Editors of the American Architect: —

Dear Sirs, — Will you allow us to correct a slight error in your reply to a correspondent, in your issue of February 7, asking for information respecting Keene's Cement. You speak of the pure whiteness of the *coarse*, and infer that the superfine is *not* so white. As a fact (and the samples of the respective kinds are before us as we write), the superfine is of a pure marble white appearance, and the coarse is of a slight pinkish hue. Yours respectfully,

S. L. Merchant & Co.

NOTES AND CLIPPINGS.

Water-Blasting. — The value of water as an aid to blasting when used in connection with explosives is rapidly becoming recognized in this country, as well as in the larger mines and quarries of Europe. Ordinary blasting with gunpowder in coal mining is done by boring a hole in the face of the coal about two inches in diameter and four or five feet deep. Into this is inserted the powder cartridge, together with the slow fuse, when the hole has been well tamped, filled with any dry refuse rammed in tight, then fired by lighting the fuse. In this operation (and we have described it thus not to show any new ideas connected with it, but for comparison) a very dangerous flame, especially in gaseous pits, is created, and appalling results often ensue; carbonic acid and sulphurous acid gases are generated, very dangerous to miners and to mining properties. When it is desired to blast with water together with gunpowder, the process is conducted by inserting into the bore-hole a powder cartridge with the fuse attached as in the ordinary way; next to the powder cartridge is inserted into the bore-hole a tube containing water. These tubes must be as large as the bore-hole will admit, and of any length convenient to handle, the larger the better; they may be made of any cheap material convenient, cheap thin tin plate, or stout brown paper turned around on a wooden roller, after being well pasted together, the ends closed with corks. The bore-hole is now tamped in the ordinary manner, the fuse lit and the cartridge fired in the usual manner. As a result of this process the following points of excellence, among many others, may be briefly mentioned: the powder, in exploding, bursts the tube containing the water, and, careful estimates show, with increased power or explosive violence, as the rending force is extended through the water in accordance with the well-known principle of hydrostatics practically demonstrated years ago by Bramah, over the enlarged interior area of the bore-hole, due to the space occupied by the water tube. A much larger quantity of the material to be mined or quarried is thereby brought down or loosened with a smaller quantity of the explosive used. The heat given off by the burning of the powder and surrounding gases converts a larger proportion of the water into steam, the elastic force of which assists in the operation of blasting; the steam and remaining water together extinguish the flame and flash of the powder, and absorb and neutralize the greater portion of the gases and smoke resulting from the explosion. It will readily be seen that by this process are met together economy, power and safety, the system being simple and effective and not attended with anything inconsistent with the well-known laws of explosion. It is to be hoped that, in the best interests of humanity, our large and intelligent body of miners and quarrymen will not be slow to adopt an amelioration in the present crude and dangerous processes of blasting, which will tend, in no small measure, to render premature explosions in mines a thing of the past, rather than one of almost daily occurrence. — *Coal Trade Journal.*

A Forest tree in Georgia was recently cut down at six o'clock in the morning, made into pulp at a factory, and into paper at six o'clock in the evening, and at six o'clock next morning was distributed as a printed newspaper. — *Journal of Progress.*

An Icequake. — Madison had a tremor, on Friday, January 23, which was due not to a social or other earthquake, nor yet to a dynamite explosion. A disturbance which shook the university buildings was caused by the expansion and contraction of ice in Lake Mendota. Under the influence of intense cold the ice had expanded until the shores could resist the pressure no longer, when the ice burst and doubled up about four hundred feet from the shore and on a line parallel with it. The sudden release of the shores from pressure caused the tremor. This phenomenon of freezing upon bodies of water having low shores frequently results in the pileing up of huge rocks on the edge and the overturning of trees. The shore line of lakes frequently consists of gravel mounds forced up during successive winters. — *Milwaukee Wisconsin.*

Death of Mr. Samuel Huggins. — We regret to announce the death of Mr. Samuel Huggins, whose writings on architectural topics will be familiar to the readers of the professional journals. Mr. Huggins was educated for the architectural profession, but seems to have abandoned the practice of it for writing about it. His papers, read before learned societies, and contributed to this and other journals were very numerous, and he was one of the first and staunchest opponents of the destructive nature of the church restoration movement. He was the author, also, of a "*Chart of the History of Architecture*," which was first published in the *British Architect*. One of his latest literary efforts — indeed we believe his last — was the publication, in our "Friends in Council" series, of his opinions as to the style, etc., of the proposed Liverpool Cathedral, on the 26th ult. And it is a remarkable testimony to his vital energy and indomitable perseverance that even on his death-bed he should feel it incumbent upon him to write us, apologizing for the non-fulfilment of a promise made a week or two since. That letter reached us the day but one before he died. In it he spoke of the apparent hopelessness of his recovery and of the work left unfinished. Mr. Huggins was born at Deal, in Kent, in 1811. — *British Architect for January* 16.

Work of the New York Department of Public Works. — The report of the Department of Public Works for the year ending December 31 last was yesterday sent to the Mayor. The expenditures for the year were $4,644,997.37. Of this sum $2,716,287.38 was expended on appropriation account, $956,823.91 on assessment fund, street improvements; $918,610.31 on funded debt, water supply, and $53,275.77 on trust funds, for meters and pavements. The rainfall in the Croton watershed for the year was 53.71 inches, which since 1865 has only been exceeded in 1878 and 1882. Still there were several periods of extreme dry weather, when 2,040,000,000 gallons of water had to be drawn from the two storage reservoirs and several lakes to supplement the natural flow of the Croton River, so as to keep the aqueduct fully supplied. All the reservoirs and lakes are now full. A water-supply of about 10,000 gallons per day is now received from the Bronx River. The works are completed, except the receiving-reservoir at William's Bridge. The total length of water-pipes now in use is 562.9 miles, with 5,960 stop-cocks and 7,400 fire hydrants. The average quantity of water supplied per day through 10,905 meters is 20,060,600 gallons. The excessive waste of water which occurs in freezing weather through the habit of letting the water run from faucets day and night, to prevent freezing in the pipes, is shown by the fact that on a single cold day, December 20, the Central Park reservoir was drawn down five inches, showing a waste of 13,000,000 gallons on that day over the usual consumption and over the supply received from the aqueduct. The department collected during the year $1,985,329.32 for water, and $143,063.38 for vault and sewer permits and from other sources. — *New York Times.*

Khartoum. — Khartoum, the chief city as well as the capital of the Soudan country claimed by Egypt, is about fifteen hundred miles from Cairo. It stands on the peninsula formed by the junction of the Blue and the White Nile. The dock-yards and principal landings are on the Blue Nile. The water in the river is about fourteen hundred feet above the level of the sea. There is an extensive quay on the banks of the river, where the principal commerce of a country as large as all India naturally centres. The provinces of the Soudan are not commercial to any great extent, but these great rivers bring to this point a large number of ships. The principal productions are ivory, hides, senna, gum-Arabic and beeswax. The inhabitants of that vast country are notoriously indolent, and some one has said that bees are the only industrious creatures in the whole country. A great part of the city lies low, so that at high water it is flooded, rendering it unhealthy; but it is believed that some day a remedy for that evil will be provided. The gardens around the city are extensive and contain long rows of date-palms, many of which are half a century old and have become very valuable. The climate is severe. From June till October the thermometer ranges from 95° to 100° in the shade, and is about 80° in winter during the daytime. The city was founded by Mohammed Ali in 1823, and at the opening of this century only a few fishing huts marked its site. In 1859 the population was estimated at fifty thousand, but in the next ten years the disturbed state of the country brought the number down to fifteen thousand. Since then, however, there has been a marked recovery, and of late the population has been about fifty thousand. The town, though consisting chiefly of mean, mud-built huts, has a number of substantial modern dwellings, the most imposing of which is the stone-faced palace of the governor, in which Gordon took up his abode. The Christian population is very small, but Khartoum is the seat of a Roman Catholic mission which was established by Pope Gregory XVI, in 1846. Protestant missions were long conducted by Prof. Ignaz Knoblecher. Several European consulates are established there. — *Springfield Republican.*

BUILDING INTELLIGENCE.

(Reported for The American Architect and Building News.)

[Although a large portion of the building intelligence is provided by their regular correspondents, the editors greatly desire to receive voluntary information, especially from the smaller and outlying towns.]

BUILDING PATENTS.

[Printed specifications of any patents here mentioned, together with full detail illustrations, may be obtained of the Commissioner of Patents, at Washington, for twenty-five cents.]

311,872. SASH-HOLDER. — Norman Clark, Sterling, Ill.

311,891. ILLUMINATING-TILE FOR SIDEWALKS, ROOFING, ETC.—Charles E. Furman, New York, N.Y.

311,892. WRENCH. — John Gibbons, West Troy, N. Y.

311,895. MANUFACTURE OF HYDRAULIC CEMENT. —David Griffiths, Egypt, Pa.

311,911. COMBINED DRAWING-SQUARE AND MITER. —John Müller, Kansas City, Mo.

311,929. WEATHER-STRIP. — Theophilus Weaver, Harrisburg, Pa.

311,938. PAPER FOR ROOFING FELT, ETC.—Charles W. Armour, Summit, N. J.

311,939. PAPER FOR SHEATHING, ETC. — Charles W Armour, Summit, N. J.

311,982. WATER-CLOSET APPARATUS HANDLE. — Joseph H. Hawley, Danbury, Conn.

311,992. LOCK.—Andreas Kohlhof, New York, N.Y.

312,003. FIREPLACE HEATER. — Gardner L. Morrison, Brooklyn, N. Y.

312,005. WINDOW.—James W. Naughton, Brooklyn, N. Y.

312,012. FILE-HOLDER.—William H. Phelps, Stamford, Conn.

312,023. COMBINED SASH-FASTENER AND LIFT. — Frederick W. Seymour, Newark, O.

312,024. TRANSOM-LIFTER. — John H. Shaw, New Haven, Conn.

312,025. SASH-CORD GUIDE. — David Shealy, Bucyrus, O.

312,051. WINDOW-BLIND SLAT. — Henry E. Willer, Milwaukee, Wis.

312,052. WINDOW-FRAME. — Henry E. Willer, Milwaukee, Wis.

312,053. WINDOW-SHUTTER.—Henry E. Willer, Milwaukee, Wis.

312,057. COMPOSITION FOR THE MANUFACTURE OF ARTIFICIAL STONE.—James L. Wray, Watseka, Ill.

312,076. AUTOMATIC FIRE-ESCAPE. — Frank A. Bone, Lebanon, O.

312,077. WATER-COCK.—Philip A. Bowen, Milwaukee, Wis.

312,120. CUT-OFF FOR CISTERNS.—John S. Heaton, Shelbyville, Ky.

312,127. DOOR-CHECK. — Thomas M. Kenney, Cambridge, Mass.

312,143. FIRE-FRONT. — Patrick McCauley, Braddock, Pa.

312,175. PERSPECTIVE DELINEATOR FOR DRAUGHTING.—William E. Spier, Augusta, Ga.

312,177. VENTILATOR.—John M. Ayer, Chicago, Ill.

312,222. ILLUMINATING-TILING. — Christian H. Ross, Chicago, Ill.

312,224. TRANSOM-OPERATOR. — Sutton Strong, Harmony, Ind.

312,229. PLANE.— William Tidgewell, Middletown, Conn.

SUMMARY OF THE WEEK.

Baltimore.

BUILDING PERMITS. — Since our last report ten permits have been granted, the more important of which are the following: —

A. Beckenheimer & Bro., three-st'y brick building, n s Stiles St., e of High St.

D. Gotto, three-st'y brick building, w s East St., n of Baltimore St.

Boston Fear, 6 three-st'y brick buildings, w s Mount St., s of Edmonson Ave.; and 6 two-st'y brick buildings, s s Calso Alley, w of Mount St. and s of Edmonson Ave.

Boston.

PUBLIC BUILDINGS.—The annual report of the Superintendent of Public Buildings states that: —

The public buildings in charge of this department belonging to the City of Boston, number 322, together with 11 leased buildings, variously occupied for city purposes. The City Hall is occupied entirely by the various departments and offices of the city. The Fire Department requires for its service the use of 58 buildings. The buildings in use by the Police Department number 18, 14 of which are in use for police-station houses, and the remainder for lock-ups. Public Library accommodations are paid for by this department for buildings hired in South Boston and Roxbury. The above-mentioned buildings occupy 1,284,919 square feet of land, and their assessed value is $7,800,000. The school-houses owned by the city number 168, occupying 2,923,922 square feet of land, the valuation of land and buildings being $8,600,000.

In addition 14 buildings are leased for school purposes at an annual rental of $5,520, and containing 23 school rooms. The expenditures for repairs, alterations, improvements, heating, furnishing, care and cleaning, have been as follows: public buildings, $147,859 90; labor and material in the removal of the Beacon Hill reservoir, $13,670.87; county buildings, $42,629.19; school-houses, $193,263.94.

BUILDING PERMITS. — *Wood. — Sargent St., No.* 27, dwell., 22′ x 30′; A. P. Clifford, owner and builder.

Sargent St., No. 21, dwell., 22′ x 30′; A. B. Clifford, owner and builder.

Orchard Pl., near Boston St., dwell., 23′ x 30′; Susan Eadie, owner; William Eadie, builder.

Parker St., No. 729, dwell., 30′ 6″ x 35′; Jacob Goldsmith, owner.

Parker St., No. 731, dwell., 25′ x 40′ 6″; Jacob Goldsmith, owner.

Zeigler St., No. 111, dwell., 21′ x 58′; J. H. Waite owner; William Morse, builder.

New Seaver St., No. 30, dwell., 29′ x 31′; A. M. Leonard, owner; C. H. Wetmore, builder.

Erie Ave., cor. New Seaver St., dwell., 27′ x 38′; A. M. Leonard, owner; C. H. Wetmore, builder.

Erie Ave., near New Seaver St., dwell., 29′ 9″ x 40′; A. M. Leonard, owner; C. H. Wetmore, builder.

Atherton St., near Washington St., dwell., 21′ x 52′; F. W. Kittredge, owner.

Brooklyn.

BUILDING PERMITS.—*Van Buren St.*, n s, 100′ w Stuyvesant Ave., three-st'y brick building, m'f'g purposes, gravel roofs; cost, $5,000; owners, Wm. Nagle and R. W. Homan, 217 Hooper St. and 91 Stuyvesant Ave.; architect and carpenter, Wm. H. Doughty; masons, James Ashfield & Son.

Graham Ave., No. 426, e s, 100′ n Withers St., four-st'y frame (brick-filled) store and tenement, tin roof; owner, Augustus Weingardt, 428 Graham Ave.; architect, Th. Engelhardt; builder, Andrew J. Hulse.

Steuben St., e s, 85′ s De Kalb Ave., 10 four-st'y brown-stone flats, tin roofs; cost, abt. $12,000 each; owner, Thomas H. Brush, cor. Fourth St. and Flatbush Ave.; architect, Fred E. Lockwood.

Halsey St., s s, 115′ e Sumner Ave., 12 two-st'y brick dwells., felt, cement and gravel roof, wooden cornice; cost, $3,500 each; owner, George R. Waldron, 529 Halsey St., architect, Amzi Hill.

Cedar St., No. 52, s s, 193′ e Evergreen Ave., three-st'y frame flat, tin roof; cost. $3,000; owners, C. & G. Spoerl; architect, Th. Engelhardt.

Powers St., No. 259, n s, 125′ e Judge St., three-st'y frame tenement, tin roof; cost, $4,000; owner and architect, Herman Meydrott, on premises; builders, C. Buchheit and D. Kreuder.

Fulton St., s w cor. Boerum St., two-st'y and attic oolitic stone hall of records, tin roof; cost, $275,000; owner, Kings County; architect, W. A. Mundell; builders, P. J. Carlin and L. W. Seaman, Jr.

Somers St., n e cor. Rockaway Ave., 14, cor. three-st'y, others two-st'y, brick store and dwell., balance dwells., felt and gravel roofs; cost, cor., $4,000; others, $2,000 each; owner, George R. Brown, 34 South Portland Ave.; builder, L. E. Brown.

Marion St., s e cor. Hopkinson Ave., 6, 3 two-st'y and 3 three-st'y frame dwells.; cost, abt. $2,000 and $3,000 each; owner, Geo. W. Lung, 20 Utica Ave.; architect, Chas. E. Hebbard.

Bergen St., Nos. 51 *and* 53, three-st'y brick carriage repository, tin roof; cost, $6,000; owners, Messrs. Linn Bros., 47 and 49 Bergen St.; architect, C. F. Eisenach; builders, T. J. Nash and I. B. Jacobs.

Palmetto St., n s, 125′ w Knickerbocker Ave.; 3 two-st'y frame dwells., tin roofs; cost, total, $6,000; owner, F. C. Feldmann, 20 John St., New York; architect and builder, R. Ferguson.

Magnolia St., s s, 300′ e Knickerbocker Ave., three-st'y frame store and tenement; cost, $4,200; owner and architect, Charles Kretschmar, 310 Franklin Ave.; builder, E. Hendrickson.

ALTERATIONS. — *Bridge St.*, e s, 200′ n Myrtle Ave., repair damage by fire; cost, $3,000; owner, Trustees of E. M. Church; builder, T. A. Remsen.

Chicago.

THE OLD CITY HALL.— The City Council has decided to lease the old city-hall property to Henry S. Everhart, for a period of ninety-nine years. He agrees to pay $30,000 a year for it, and to erect on the lot a building to cost $500,000 or more. Everhart is to take possession of the property March 1, 1885. It is also provided that there shall be a re-valuation each twenty years, and upon such re-valuation the annual rent shall be based at the rate of six per cent provided that such re-valuation shall not be a less sum than shall yield to the city an annual rental for the premises of not less than $30,000.

BUILDING PERMITS.—S. H. Wheeler, 10 two-st'y stores and dwells., 1333-1351 West Lake St.; cost, $18,000.

J. L. Campbell, 24 two-st'y dwells., Western Ave.; cost, $72,000; architects, Edbrooke & Burnham.

C. Braubigam, three-st'y dwell., 253 West Huron St.; cost, $4,300; architect, H. Kley.

S. Taylor, 2 two-st'y flats, 207-209 North Oakley St.; cost, $5,000; architect, G. C. Garnsby; builder, Chas. Holman.

H. W. Martin, 5 three-st'y flats, 1701-1711 Dearborn St.; cost, $11,000.

New York.

THE INSPECTOR OF BUILDINGS. — The appointment of Mr. Albert F. D'Oench as Inspector of Buildings will result in the issue of a number of permits to build. There is a large accumulation of applications.

THE BUILDING BUREAU. — Inspector William P. Esterbrook, of the Bureau of Buildings, has presented his report for last year to the Fire Commissioners. It shows that during the year plans were filed for the erection of 2,912 buildings, of which 1,013 were for tenements and 182 flats. There were only four private dwellings, at a cost exceeding $50,000 apiece. The total estimated cost for all buildings was $41,461,208.

There were filed plans for 2,463 alterations, at a total estimated cost of $4,659,532. The Bureau investigated 2,073 complaints, and dealt with 7,851 violations of the building law. In 5,103 of these cases the detects were remedied without carrying the matter to the courts.

In the last sixteen years plans were filed for the erection of 34,907 buildings, at a total cost of $509,961,484.

APARTMENT-HOUSES. — On the s w cor. of Fifth Ave. and Thirty-fifth St., a co-operative apartment-house, 85′ 9″ x 146′, is to be built at a cost of about $600,000, from designs of Mr. Chas. C. Haight.

On the n s of Fifty-seventh St., between Eighth and Ninth Aves., a seven-st'y apartment-house, 50′ x 90′, of brick, stone and terra-cotta, is to be built by Mr. Philip Braender, from plans of Mr. John Brandt.

HOUSES. — On the n s of Seventy-third St., w of Park Ave., Mr. John Prague, the architect, will have erected for his own account 5 four-st'y and basement dwells., 17′ 7″ x 80′ each, brick, stone and terra-cotta fronts; cost, about $100,000.

STORE. — At No. 478 Pearl Street, Mr. Thos. R. Jackson, the architect, will have built a six-st'y and basement store-building, of brick and stone, adjoining his structure erected last year.

OFFICE AND STORE BUILDING. — Messrs. Ottmann, Keppler & Schwarzmann have now decided to build the *Puck* Building on the s w cor. of Houston and Mulberry Sts.; the fronts will be of brick, stone and iron, and the cost of the structure about $200,000; Mr. Albert Wagner is the architect.

BUILDING PERMITS. — *One Hundred and Forty-fifth St.*, n s, 173′ e Third Ave., two-st'y brick dwell., tin roof; cost, $3,000; owner, Geo. J. Ord, 606 East One Hundred and Forty-fifth St.; architect, John Rogers.

Alexander Ave., s e cor. One Hundred and Thirty-seventh St., 7 three-st'y brick dwells., tin roofs; cost, each, $6,000; owner, Frank G. Swartout, 353 East One Hundred and Twenty-fourth St.; architect, Wm. J. Merritt.

Ave. A, e s, 75′ n Eighty-fourth St., 3 five-st'y brick tenements and stores, tin roofs; cost, each, $13,500; owner, Frank White, 2425 First Ave.; architect, John Brandt.

Fulton St., No. 242, five-st'y brick tenement and store, tin roof; cost, $16,000; owner, Henry Lemmermann, Brooklyn; architects, A. Pfund & Son.

One Hundred and Fiftieth St., n s, 100′ w North Third Ave., 2 frame tenements, tin roofs; cost, front, $4,800 and rear $2,000; owner, Louis L. Zugner, 633 North Third Ave.; architect, A. Arctander.

West Fifty-first St., No. 529, five-st'y brick and stone tenement, tin roof; cost, $14,000; owner, Henrik G. Folkman, 798 Tenth Ave.; architect, J. W. Cole; builder, J. Jordan.

St. Mark's Pl., No. 11, five-st'y brick tenement, tin roof; cost, $18,000; owner, John Kreusser, 1258 Lexington Ave.; architect, J. Kastner.

Eighty-fifth St., s s, 235′ 6″ e Fourth Ave., six-st'y brick flat, tin roof; cost, $35,000; owner, Philip Braender, Ave. B, between Eighty-fourth and Eighty-fifth Sts.; architect, John Brandt.

One Hundred and Fifty-second St., s s, 175′ w Courtland Ave., two-st'y frame dwell., tin roof; cost, $3,400; owner, Ferdinand Geyer, 601 Courtland Ave.; architect, Adolph Pfeiffer.

One Hundred and Fifty-second St., s s, 200′ w Courtland Ave., two-st'y frame dwell., tin roof; cost, $3,400; owner, Nicholas Jesbera, 562 East One Hundred and Fifty-first St.; architect, etc., same as last.

Willis Ave., w s, 25′ n One Hundred and Forty-fourth St., 4 four-st'y brick tenements, tin roofs; cost, $15,000 each; owner, Patrick Nolan, 954 East One Hundred and Thirty-eighth St.; architect, Chas. Baxter.

Third Ave., w s, 70′ 8″ n One Hundred and Second St., 3 four-st'y brick tenements and stores, tin roofs; cost, each, $8,500; owner, John J. Worden, 6 West Third St.; architects, D. & J. Jardine.

Lexington Ave., No. 1884, four-st'y brick tenement, tin roof; cost, $10,000; owner, John Bannon, 74 East One Hundred and Twenty-first St.; architect, Alfred Chamberlain.

Seventy-sixth St., s s, 150′ w Ave. A, five-st'y brick tenement, tin roof; cost, $15,000; owners, Jos. and Thomas Farrell, 35 Sutton Pl.; architects, A. B. Ogden & Son.

West Twenty-first St., Nos. 513, 515 *and* 517, three-st'y brick workshop, tin roof; cost, $3,500; owners and builders, Ellin & Kitson, 519 West Twenty-first St.

Greenwich St., No. 364, five-st'y brick tenement and store, tin roof; cost, $15,000; owner, Michael Duff, 127 West One Hundred and Twenty-third St.; architects, Babcock & McAvoy.

Third Ave., w s, 49′ 5″ n Twenty-sixth St., five-st'y brick tenement and store, tin roof; owner, L. Lese, 398 Third Ave.; architect, John G. Prague.

Monroe St., No. 168, five-st'y and basement brick tenement and store, tin roof; cost, $16,000; owner and builder, John Totten, 240 West Forty-ninth St.; architect, M. Louis Ungrich.

One Hundred and Fifty-fifth St., s s, 600′ w Eighth Ave., one-st'y frame, concert platform, tin roof; cost, $5,000; owners, Schlund & Reubert, on premises; architect, J. Kastner.

One Hundred and Thirtieth St., s s, 300′ w Sixth Ave., 4 three-st'y and basement brown-stone front dwells., tin roofs; cost, two each, $15,000 and two each, $12,000; owner and builder, S. J. Wright, 201 West One Hundred and Thirtieth St.; architects, Cleverdon & Putzel.

One Hundred and Twenty-third St., n s, 100′ w Mt. Morris Ave., 4 three-st'y and basement brown-stone front dwells., tin roofs; cost, each, $13,000; owner, Anthony Smyth, 22 West One Hundred and Twenty-sixth St.; architects, Cleverdon & Putzel.

West Thirty-seventh St., Nos. 445, 447 *and* 449, 3 five-st'y brick tenements, tin roofs; cost, $13,000; owner, Adam Grasmuck, 443 West Thirty-seventh St.; architect, John M. Forster.

ALTERATIONS. — *West Thirteenth St., Nos.* 160 *and* 162, two-st'y brick extension, tin roofs; cost, $4,000; owner, John Gault, 71 Broadway; architects, D. & J. Jardine.

Fifth Ave., No. 385, one-st'y and basement brick extension, tin roof; also internal alterations; cost, $12,000; owner, Samuel S. Sands, 80 Fifth Ave.; architects, D. & J. Jardine.

Philadelphia.

BUILDING PERMITS. — *Jasper St.*, n e cor. York St., three-st'y addition to dye-house, 18′ x 49′; Eldredge & Stewart, contractors.

Willow St., Nos. 704 *and* 706, 2 vaults, 16′ x 38′; L. Schaumberg & Co., owners.

Emery St., n of Bockins St., two-st'y dwell., 16′ x 26′; Amos Crosta, owner.

Walnut St., No. 425, three-st'y addition to building, 21′ x 50′; Samuel Hart, contractor.

Passayunk Road, No. 1719, three-st'y dwell., 16′ x 40′; I. Knieling, contractor.

North Eighth St., No. 1600, carpenter-shop, 16′ x 24′; E. Thompson, owner.

Franklin St., above York St., 3 two-st'y buildings, 14′ x 42′; Amos D. Kennedy, owner.

St. Louis.

BUILDING PERMITS. — Forty-eight permits have been issued since our last report ten of which are for unimportant frame houses. Of the rest, those worth $2,500 and over are as follows: —

J. W. Zipf, two-st'y brick dwell.; cost, $4,700; A. Beinke & Co., architects; H. Burns, contractor.

Fred. Nolkaemper, 3 adjacent two-st'y brick tenements; cost, $6,000; Aepken & Tramel, contractors.

Fred. Nolkaemper, 3 adjacent two-st'y brick tenements; cost, $6,000; Aepken & Tramel, contractors.

Fred. Nolkaemper, double brick tenement; cost, $4,000; Aepken & Tramel, contractors.

Abner Cooper, 8 adjacent two-st'y brick tenements; cost, $15,000; contract sublet.

E. Engendorf, 3 adjacent two-st'y brick dwells.; cost, $8,000; Wm. Grahl, contractor.

Fred. Stock, two-st'y store and tenement; cost, $3,000; Chas. May, architect; Aug. Fink, contractor.

Henry Stehmann, two-st'y store and tenement; cost, $3,850; Chas. Gerhardt, contractor.

Wm. W Kaane, two-st'y double tenement; cost, $3,000; Alfred M. Baker, contractor.

Chas. Seibert, two-st'y double tenement; cost, $3,000; Wm. Rieve & Son, contractors.

O. Schmitz, two-st'y brick dwell.; cost, $4,800; E. Jungenfeld & Co., architects; A. Haesseler, contractors.

Anthony Kessler, one-st'y brick warehouse; cost, $4,000; A. Haesseler, contractor.

M. G. Hoyt, two-st'y brick dwell.; cost, $7,000; F. S. Green, contractor.

Hoyt Metal Co., one-st'y brick factory; cost, $3,400; F. S. Green, contractor.

Patrick Banbrick, two-st'y brick dwell.; cost, $3,000; T. Murphy, contractor.

S. P. Garrey, two-st'y store and dwell.; cost, $4,300; F. Herrmann, contractor.

Robt. Berry, two-st'y brick dwell.; cost, $3,000; Henry Meyer, contractor.

Philip Van Phul, two-st'y brick dwell.; cost, $4,500; Jno. Costello, contractor.

St. Paul, Minn.

STORE.—Brick and frame building to be built for Mr. T. P. Boyd; cost, $18,000; Hodgson, Wallingford & Stern, architects.

BUILDING PERMITS. — *Wallace St.*, e s, between Arcade and Maple Sts., two-st'y frame stores and dwell.; cost, $2,475; owner, Chris. Ash, 918 Tremont St.

Payne Ave., w s, between Whitall and Ross Sts., two-st'y frame store and dwell.; cost, $1,500; owner, Mr. Frank Anderson.

Bates Ave., w, between Hudson and Plum Sts., two-st'y frame store and dwell.; cost, $2,000; owner, Mr. Peter Hoffman.

Virginia Ave., w s, between Ellen and University Sts., two-st'y frame dwell.; cost, $1,500; owner, Patrick McAvinchy.

Martin St., n s, between Western and Virginia Sts., two-st'y frame dwell.; cost, $2,400; owner, Jacob Richter.

Seventh St., s s, between Robert and Minnesota Sts., three-st'y brick block, stores and offices; cost, $18,000; owner, Wm. B. McKowen, Jackson, La.

Holly Ave., s s, between Kent and Mackubine Sts., two-st'y frame dwell.; cost, $3,500; owner, J. G. Glass; architects, Hodgson, Wallingford & Stern.

East Seventh St., n s, between Mendota and Forest Sts., two st'y frame store and dwell.; cost, $1,225; owner, Christ. Albrecht.

Lawson St., s s, between Bradley and Jessie Sts., frame Norwegian church; cost, $1,850; John Nelson, trustee, 706 Robert St.

General Notes.

ALLENTOWN, PA. — Koch & Shankweiler are about building a block of brick and Sutherland Falls marble, 46′ x 119′, five-st'y; cost, $75,000; to be occupied as store on first floor, and hotel above; L. S. Jacoby, architect.

AUGUSTA, ME. — The bill passed by Congress, February 10, for the erection of a new public building in this city was secured mainly through the enterprise of Hon. J. H. Manley.

BLOOMSBURG, PA. —T. L. Gunton is about building a frame residence, costing $3,500.

BOONVILLE, IND.—The Air-Line Company intends to build a new and handsome passenger-depot at Boonville, Ind., in the near future.

FERGUS, MINN.—If Fergus gets the third insane asylum, as no one here seems to doubt, the building season will open up with considerable activity. The asylum, county jail, new flour mill and Second ward school, to say nothing of several private buildings to be erected, will bring city improvements pretty well up to $1,000,000 for the season of 1885.

The Board of Education met for the purpose of taking action on the new Second ward school building. It is presumed, though the matter is not yet decided, that a four-room building will be erected at a cost of $15,000.

HARTFORD, CONN. — The Council Board last evening ordered the preparation of an ordinance to prevent the erection of buildings without leave. It has been common for intending builders to put in a petition and then go on with the work. If they had the verbal assurance of the committee that the report would be favorable, so much the better, but many buildings have made much progress without even this. There has been complaint of the practice, but nothing has been done to stop it. The ordinance asked from the committee is to forbid carrying on building work until the permit has been given, under a penalty of $25 for each day's disregard of the law.—*Courant.*

INDIANAPOLIS, IND. — Indianapolis wants authority from the State to build a new city-hall.

JACKSON, TENN. — The Tennessee Legislature, on January 29, passed a bill to spend $85,000 in building an insane asylum at Jackson.

KANSAS CITY, MO. — The plans for the new building to be erected on the cor. of Sixth and Main Sts., by Mr. Lobenstein, are in the hands of the architect. It is to be 50′ x 142′, and six-st'y in height. It will be of enriched terra-cotta, pressed and glazed brick, and will cost about $75,000.

Dr. Flanders, 8 two-st'y and basement residences, 601-615 East Sixteenth St.; cost, $12,000.

J. M. Jones, a $4,000 brick house, at 1405 Locust St.

Mrs. Catherine Rogers, two-st'y brick house, at 1306 Baltimore Ave.; to cost $4,000.

PITTSBURGH, PA.—The Union Iron Mills of Carnegie Bros. & Co., employing over four hundred men, resumed operations in all departments, February 16.

PLAINFIELD, N. J.—At Washington Rock, New York capitalists, who have formed a stock company, propose at an early date to begin work on a large hotel. The hotel will be built of brick, four stories high, with a frontage of 400 feet. The company are also to erect some twenty or thirty cottages and a fine drive. The "Rock" is about four miles from Plainfield, at an elevation of 600 feet.

PLEASANTVILLE, N. J. —Over $15,000 have been subscribed toward the erection of a factory here, for the manufacture of type-setting machines. When $75,000 is subscribed, the work of erection will begin.

PORTLAND, ME. — Gen. Brown, for the Executive Committee of the Soldiers' and Sailors' Monument Association, has filed a petition asking that Market Square, now occupied by Market Hall, be given to the association, for the erection of a monument, and asks that a special meeting of the boards may be called to act upon it. The Mayor has decided that the municipal year is so nearly expired that the request must go over to the next City Government. The association's proposition is to erect within three years a monument costing not less than $20,000.

OHIO BUILDING NOTES. — The Ohio Legislature has before it bills as follows: to erect a town-hall for Wellington Township, Lorain Co.; to erect a town-hall in Columbia Township, Hamilton County; to authorize Ashland County to borrow $30,000 for a jail and sheriff's house.

SAN FRANCISCO, CAL. — It is reported that Messrs. Flood and Mackay have decided to erect two business blocks on their lots at both the corners of Market and Fourth Streets, each costing in the neighborhood of $1,500,000. Work will be begun in the spring.—*San Francisco Chronicle.*

SPRINGFIELD, MASS. — Plans were adopted, February 11, for a $20,000 building, in which to house the recently-formed School for Christian Workers, the only thing of the kind in the country.

YANKTON, D. T. — The list of contemplated building improvements in Yankton the coming season foots up $800,000.

COMPETITION.

CITY-HALL.
[At Richmond, Va.]
February 16, 1885.

Proposals are invited **until June 1st, 1885**, for furnishing designs for a city-hall upon which premiums will be paid as follows: —

For first best design, $700.

For second best design, $300.

The Committee on Grounds and Buildings of the City Council reserves the right to reject any and all designs.

For information address the undersigned.

487 W. E. CUTSHAW, City Engineer.

PROPOSALS.

BREAKWATER.
[At Black Rock Harbor, Conn.]
ENGINEER OFFICE, U. S. ARMY,
11 INSURANCE BUILDING,
NEW HAVEN, CONN., February 4, 1885.

Sealed proposals for constructing a breakwater at Black Rock Harbor, Conn., will be received at this office **until 10 o'clock.** A. M., **on Tuesday, March 10, 1885.**

Proposals must be made in triplicate. Specifications, blank forms and instructions to bidders may be had on application at this office.

WALTER McFARLAND,
480 Lt.-Col. of Engineers.

WOOD FRAMING, GALVANIZED IRON-WORK, ROOF COVERING, ETC.
[At Frankfort, Ky.]
OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., February 13, 1885.

Sealed proposals will be received at this office **until 2 P. M., on the 6th day of March, 1885**, for furnishing and fixing in place complete, the wood roof framing, galvanized iron-work, roof covering, etc., for the court-house, post-office, etc., building at Frankfort, Ky., in accordance with drawings and specifications, copies of which and any additional information may be obtained on application at this office, or the office of the superintendent.

Bids must be accompanied by a certified check, for $300, and those received after the time of opening will not be considered. M. E. BELL,
479 Supervising Architect.

BRICK, CEMENT, ETC.
[At Philadelphia, Pa.]
PUBLIC BUILDING, PENN SQUARE.

Sealed proposals will be received at the Office of the Commissioners, in the building, **until 12 o'clock, noon, of Tuesday, March 3, 1885**, for all the bricks, cement and coal required during the present year.

Blank forms, with envelopes can be had on application at the office of the architect in the building, second floor, south front.

The Commissioners reserve the right to reject any or all bids.

By order of the Commissioners.

SAMUEL C. PERKINS, President.
Attest: WM. B. LAND, Secretary. 479

PROPOSALS.

NOTICE TO BIDDERS.

OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., February 16, 1885.

The limit of cost of the court-house, etc., at Erie, Pa., having been extended, proposals as advertised, will not be opened at this office on the 28th instant.

New plans will be prepared embracing the extension, and the work will be re-advertised as soon as they are ready. M. E. BELL,
478 Supervising Architect.

RAILWAY-STATION.
[At Reading, Pa.]
PENNSYLVANIA RAILROAD COMPANY,
OFFICE OF CHIEF ENGINEER,
PHILADELPHIA, PA., February 10, 1885.

Sealed proposals will be received at this office **until 9 A. M., February 23**, for furnishing all labor and materials, and erecting complete (excepting foundations) a brick passenger-station at Reading, Pa., on the line of the Pennsylvania Schuylkill Valley Railroad. Plans and specifications can be seen at Room 16, third floor, "Annex" Building, 233 South Fourth Street, Philadelphia, also at Assistant Engineer's Office, No. 520 Washington St., Reading, Pa.

WM. H. BROWN,
478 Chief Engineer.

PAINTING, POLISHING AND GLAZING.
[At Kansas City, Mo.]
OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., February 10, 1885.

Sealed proposals will be received at this office **until 2 P. M., on the 10th day of March, 1885**, for all the painting, polishing and glazing required for the custom-house, etc., building at Kansas City, Mo., in accordance with specification, copies of which and any additional information may be had on application at this office, or the office of the superintendent.

Bids must be accompanied by a certified check, and those received after the time of opening will not be considered. M. E. BELL,
478 Supervising Architect.

JAIL.
[At Scranton, Pa.]
OFFICE OF THE COMMISSIONERS OF LACKAWANNA COUNTY,
SCRANTON, PA., January 24, 1885.

Sealed proposals for the erection and completion of a county jail for Lackawanna County, to be located on the corner of Washington Ave. and New York St., in the city of Scranton, Pa., will be received by the undersigned Commissioners of said county, at their office **until Thursday, February 26, 1885, at 10 o'clock in the forenoon.** Plans and specifications will be on file at the court-house in the city of Scranton, on and after Tuesday, January 27, 1885. The builder to whom the contract shall be awarded will be required to enter into bonds with at least two approved sureties for the sum of $20,000, for the faithful performance of the contract. Work to be commenced within thirty days after the awarding of the contract, and to be finished on or before April 1, 1887.

The Commissioners reserve the right to reject any or all bids.

WM. FRANZ,
H. L. HALSTEAD,
WM. J. BURKE,
County Commissioners.
Attest: D. W. POWELL, Clerk. 478

STONE AND BRICK WORK, ETC.
[At Erie, Pa.]
OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., January 27, 1885.

Sealed proposals will be received at this office **until 2 P. M., on the 28th day of February, 1885**, for furnishing and setting all the stone and brick work for the superstructure of the court-house, post-office, etc., at Erie, Pa., in accordance with specifications and drawings, copies of which may be seen and any additional information obtained at this office or the office of the local superintendent of the building.

Bids must be accompanied by a certified check, and those received after the time of opening will not be considered. M. E. BELL,
478 Supervising Architect.

COURT-HOUSE ALTERATIONS.
[At Preston, Minn.]
PRESTON, January 9, 1885.

The County Commissioners of the County of Fillmore, in the State of Minnesota, will receive sealed proposals **until the 25th day of March, 1885, at 12 o'clock,** M., at the office of the county auditor, in the village of Preston, said county, for the remodeling of the county court-house in said village, and the building of 2 two-st'y brick additions thereto, and iron vaults therein, and the furnishing all materials, in accordance with the plans and specifications therefor on file in the office of said auditor, which can also be seen at the office of Mayberry & Son, architects, Winona, Minnesota.

No bids will be received except for the whole building complete as specified.

The successful bidder will be required to give a sufficient bond with sureties, within a reasonable time to be fixed by said commissioners, in the sum of $15,000, to be approved by said commissioners, conditioned upon the faithful performance of his contract.

Each bid must be accompanied by a sufficient bond with sureties, or a duly certified check payable to said county in a sum of at least five per cent of such bid, conditioned upon the giving the bond above specified within the time so fixed, provided such bid should be accepted. The work will cost several thousand dollars, and must be completed on or before the first day of November, 1885. Right reserved to reject any or all bids. J. G. MINER,
Chairman Board of County Commissioners.
Attest: G. A. HAYES, County Auditor.
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